DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4619

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(Withdrawn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

1097

JUN 1957

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 3-9-60
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 and attachments
(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) Feb.1960
✓ Operator's Final Report 2-23-60
(2R) ✓ Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) ✓ Settlement Sheets

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~~ MF-104's

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

9775

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
9/7	Murphy	500
	Duvanel	500
9/8	Talbert	800
9/8	GCS	120
9/8	Absent	110
9/8	gad	220
		225

SEP 8 1960

Mr. C. M. Hauptman
President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract Idm-E1097

Dear Mr. Hauptman:

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

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

We appreciate your interest and participation in the DMEA exploration program.

Sincerely yours,

George C. Selfridge (for)

Acting Director

FMMurphy/gla/kb - 8/4/60
cc to: Director's Reading File
CA&A Division
OME Field Team, Region I (2)
Docket
Chron.

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
9/7	Murphy	500
	Durham	500
9/8	Talbert	800
9/8	GCS	120
9/8	Akent	110
9/8	gad	220
		225

SEP 8 1960

Mr. George E. Guay
President
Pryor Mining Company
532 Howard Avenue
Billings, Montana

Re: DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract Idm-E1097

Dear Mr. Guay:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the above-cited contract.

This correspondence relates to the Consent to Lien and Subordination Agreement signed by you on March 25, 1957, under the DMEA program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

George C. Selfridge (for)

Acting Director

Enclosure

FMMurphy/gla/kb-8/4/60
cc to: Director's reading file
OME Field Team, Region I (2)
Code 500
Docket
Chron.

43683

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. Mr. Johnson	3/9	[illegible]
2. ~~Mr. Selfridge~~		
3. Mr. ~~Griswold~~ Murphy	3/10	[illegible]
4.		
5.		
FROM: E. D. Talbert [illegible]	3/9	

FOR: Check items for action desired

____ Action ____ Reply for signature of ____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

INT.-DUP. SEC., WASH., D.C. M56300-59

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Midland Mining Company
207 Haddan Building
Billings, Montana

pertaining to Exploration Project Contract Idm-E1097, DMEA No. 4619, including Amendments Nos. 1 through 7, for July 1957 to August 1959, inclusive, covering a uranium project on the Sandra Group of Claims, Carbon County, Montana.

My review included an examination of the Monthly Reports (Form MF-104) and supporting documents, comparison of the claimed costs with the contract and pertinent schedules, confirmation 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 reason that:

> All of the acceptable costs were under a contract provision for contribution by the Government on the basis of fixed unit costs of work performed.

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

Total cost billed by Operator		$21,559.80
Exceptions:		
Prior to this review	$ -0-	
Herewith	-0-	-0-
Total acceptable cost		$21,559.80

The contract calls for a 75 percent contribution of the allowable costs by the Government. Therefore, if the project is otherwise accepted as having met the terms of the contract, payments as follows are valid and proper:

Payable on audited claim	$16,919.85
Paid to date	16,719.86
Balance due Operator	$ 199.99

E. D. Talbert
E. D. Talbert, OME Auditor

March 9, 1960

Acceptable costs:

Stage I

Bulldozing		80 hrs.	@	$15.00	$ 1,200.00	
Rotary drilling:	0' - 100'	1,900'	@	3.40	6,460.00	
	100' - 200'	410'	@	4.85	1,988.50	
Standby time		33 hrs.	@	10.40	343.20	
Chemical analyses		25 ea.	@	5.00	125.00	$10,116.70

Stage II

Rotary drilling	0' - 100'	104'	@	$ 3.40	$ 353.60	
Crosscutting, drifting, winzing & raising		383'	@	31.50	12,064.50	
Chemical analyses		5 ea.	@	5.00	25.00	12,443.10
Total						$22,559.80

Government Copy
OFFICIAL FILE
O. M. T.
RECEIVED APR 13

DATE	INITIALS
4/13	C
4/15	Murphy

220
700

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 7

It is agreed this 27th day of March, 1959, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, and Midland Mining Company, that Exploration Project Contract No. Idm-E1097 (Docket No. DMEA-4619), dated June 3, 1957, as amended by Amendment No. 4, is further amended, effective March 27, 1959, as follows:

1. In Exhibit "A", under Description of the Work, General Provisions, after the word "winzing," add the word "raising," and after the word "winzes," add the word "raises."

2. In Exhibit "A", under Description of the Work, Stage II, first paragraph, after the word "drifting," add the word "raising."

3. In Amendment No. 2, item 3, Estimated Costs of the Project, Stage II, under Fixed Unit Costs, as Amended by Amendment No. 4, after the word "drifting," add the word "raising."

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, nor the agreed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
OME Field Team, Region I

MIDLAND MINING COMPANY

C. M. Hampton

Title President

MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

JUSTIFICATION OF AMENDMENT NO. 7

Drill holes SA-7A, -8, -9A, and -13 showed radioactivity anomalies at different altitudes. Uranium ore bodies occur in debris filling old caves along solution channels in limestone. It is impractical to drive crosscuts and drifts on grades changing from as much as plus 20° to minus 20° between drill holes, and, in some cases, it is impossible to tell whether or not the next ore body will be above or below the existing crosscut.

Donald R. MacLaren

Government's copy

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O. M. E.
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1-9	C	220
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EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 6

It is agreed this 12th day of December, 195 8, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, hereinafter called the "Government," and Midland Mining Company, hereinafter called the "Operator," that Exploration Project Contract No. Idm-E1097, (Docket No. DMEA-4619), dated June 3, 1957, as amended, herein after called the "Contract," is further amended as follows:

1. (a) Work under the Contract shall be suspended during the period beginning October 19, 1958, and ending not later than June 1, 1959.

(b) The Government will not contribute to any costs incurred by the Operator during the period of suspension or to any costs of rehabilitation or repair which in its opinion would not have occurred if there had been no suspension of work.

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

2. The date fixed in Amendment No. 5 to the Contract for completion of work is further extended from February 1, 1959 to September 1, 1959.

3. It is the essence of this Contract that the work be resumed on or before June 1, 1959 and be completed on or before September 1, 1959, in the manner required by the Contract, and if it is not so resumed and completed, the following provisions shall thereupon become effective:

(a) The Contract and all obligations of the parties thereunder, except as otherwise herein provided, shall be and are hereby terminated as follows:

(i) effective October 19, 1958, if the work has not been resumed on or before June 1, 1959.

(ii) effective September 1, 1959, if the work is resumed on or before June 1, 1959, but is not completed on or before September 1, 1959.

(b) The Government will contribute only to the allowable costs incurred prior to the relevant effective date set forth in 3 (a) above.

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

Long
Heatyer
App'd. Sol. Off.
Murphy
Kowalk
Fallquist
Selfridge

(d) The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer (for example, if the Operator either transfers or fails to retain its interest in the land), shall pay to the Government the royalty on production provided for in the Contract, in the same manner and amount and for the full period of time provided for in the Contract (as amended herein), as if certification of discovery or development had been made, such certification being hereby waived by the Operator. In addition, all rights of the Government provided for in the Contract with respect to a certification of discovery or development, percentage royalty and liens to secure payment thereof, reports (including preservation of the Operator's records), accounts, audits, and the right to recover any overpayments are hereby preserved.

(e) The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of the Contract, except as otherwise provided in this amendment.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, the amount of any item designated as "maximum," or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
ACTING Director, Office of Minerals Exploration

MIDLAND MINING COMPANY

By C. M. Hampton

Title President

Murphy
Kuowse

Dec. 3, 1958
Docket No. DMEA-4619
Contract No. Idm-E 1097
Midland Mining Company

Justification for Amendment No. 6.

For background on this justification refer to the Justification for Amendment No. 5.

The Operator resumed work during the week of August 25-30, and continued to October 19, 1958. At that time a severe snowstorm halted operations, and in a letter, dated November 15, 1958, to the Field Team, it requested a recess to June 1959.

In a letter, dated Nov. 26, to the Operating Committee, the Field Team outlined the present status of the project work and recommended that the Operator's request be approved.

Although uranium remineralization was penetrated in the drill holes and in the crosscuts driven on the Operator's own account and with DMEA assistance, the writer does not believe that the work has exposed sufficient ore to warrant certifying the project. The

use of the 100 feet of winzing, raising, and drifting remaining under the contract might expose a significant mineralized structure in the claim area, therefore, the writer recommends that the Operator be allowed to continue the exploration work through the time allowed under the proposed amendment.

The royalty payback period was increased to 12 years by Amendment No. 5, for this reason an additional extension is not included in the proposed Amendment No. 6.

The delay in completing the contract was due in part to the recess period allowed so that the Operator, on his own account, could drive a xcut from surface toward hole 5A-13.

J M Kingsbury

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Government's copy

App'd Sol. Off.
Murphey
Kyburz
Chambers
Johnson
Selfridge

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 5

It is agreed this 15th day of August, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Midland Mining Company, that Exploration Project Contract No. Idm-E1097 (Docket No. DMEA-4619), dated June 3, 1957, as amended, is further amended, as follows:

1. Work under the Contract shall be suspended during the period beginning April 21, 1958, and ending not later than October 1, 1958.

2. The date fixed in Article 3 of the Contract for completion of the work is further extended from August 1, 1958, (Amendment No. 3), to February 1, 1959.

3. The maximum period for royalty payments and the liens to secure the payment thereof, provided for in Article 8 of the Contract, is increased from eleven (11) to twelve (12) 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, nor the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. Meisendorf
Administrator, Defense Minerals
Exploration Administration

MIDLAND MINING COMPANY

By C. M. Hamphus

Title President

August 6, 1958

Docket No. DMEA-4619
Contract No. Idm-E1097
Midland Mining Company

JUSTIFICATION FOR AMENDMENT NO. 5

The object of the contract is to explore for uranium deposits in breccia filled caverns in the Madison Limestone underlying the property.

High count radioactivity was noted in drill holes SA-9A, SA-13, SA-11, SA-8, SA-7A, and SA-4.

Under Stage II of the contract, 400 feet of cross-cutting and/or shaft sinking were authorized. Amendment No. 4, dated February 17, 1958, modified the crosscutting item to include drifting and winzing. Of this item 165 feet of cross-cutting, 13 feet of winzing, and 16.5 feet of sub-level drifting have been completed to date.

This work includes part of a crosscut from surface to hole SA-13 (and 9A). A deposit of uranium was found and 28 tons of ore averaging 0.18% U_3O_8 were shipped. An additional 15 tons remain in the mine bin at this time.

The finding of ore near drill hole SA-13 indicated that the adit should be continued toward SA-7 followed by short crosscuts to SA-11 and possibly to SA-8. In a letter, dated April 11, 1958, the Field Team authorized part of this exploration work.

Work under the contract was stopped on April 21, 1958 because a late spring snowstorm blocked access to the property. Work has not been resumed to date.

On July 28, 1958, the Operator requested an extension of time to complete the contract from August 1, 1958 to February 1, 1959. In part this letter states .... "we have had some difficulty from both a financial and equipment standpoint in carrying out the work of the contract. But we are hoping to again start operating in a short time and are extending every effort to do so."

The writer recommends that the Operator be granted the extension of time, because only a small area around drill hole SA-13 has been explored and it is quite possible a significant amount of uranium ore might be discovered if the areas around drill hole SA-11, SA-8, SA-7A, and possibly SA-4 are explored.

F M Murphy

F. M. Murphy, Mining Engineer
Div. of Rare & Misc. Metals

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BUREAU OF MINES
FEB 26 1958
SPOKANE, WASH.

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EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 4

It is agreed this 17th day of February, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Midland Mining Company, that Exploration Project Contract No. Idm-E1097 (Docket No. DMEA-4619), dated June 3, 1957, as amended, is further amended, effective February 17, 1958, as follows:

1. In Exhibit "A", under Description of the Work, General Provisions, after the word "crosscutting," add the word "winzing," and after the word "crosscuts," add the word "winzes."

2. In Exhibit "A", under Description of the Work, Stage II, first paragraph, after the word "crosscutting," add the words "drifting and/or winzing."

3. In Amendment No. 2, item 3, Estimated Costs of the Project, Stage II, under Fixed Unit Costs, delete

"Crosscutting 400 feet at $31.50/ft. or, $12,600.00"

and add

"Crosscutting, drifting, and/or winzing 400 feet at $31.50/ft., or $12,600.00"

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, nor the agreed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Wing G. Agnew
Acting Executive Officer
DMEA Field Team, Region I

MIDLAND MINING COMPANY

C. W. Houghton

Title President

Exploration Project Contract No. Idm-E1097
Midland Mining Company
Carbon County, Montana

Justification of Amendment No. 4

The end of the drift at hole SA-13 is in cave material and a northwest-striking and northeast-dipping structure, possibly a solution channel, cuts across the end of the drift near this drill hole. This structure contains a few small lenses of high-grade material and it possibly served as a channel-way for downward moving uranium-bearing solutions. Since most of the ore deposits in the district are found in the bottoms of the caves, it is advisable to follow the mineralized structure downward to the bottom of the cave. The Operator hopes to avoid using a true winze but instead plans to go down with an inclined "slusher drift," probably at too steep an angle to be defined as a normal "drift."

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William C. Prinz

GOVERNMENT COPY

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RECEIVED JAN 30 1958
DATE | INITIALS | CODE

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 3

It is agreed this 21st day of January, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Midland Mining Company that Exploration Project Contract No. Idm-E1097 (Docket No. DMEA-4619), dated June 3, 1957, as amended, is further amended, effective February 1, 1958, as follows:

1. In Article 3, the period for completion of the work is extended to August 1, 1958.

2. In Article 8(b) of the contract the period for payment of royalty to the Government is changed from ten (10) years from the date of the contract 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 total amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By A. E. Weissenborn
A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I

MIDLAND MINING COMPANY

By C. M. Hampton

Title President

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Government's Copy

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 2

It is agreed this 1st 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 Midland Mining Company, hereinafter called the "Operator", that Exploration Project Contract No. Idm-E1097 (Docket No. DMEA-4619), dated June 3, 1957, hereinafter called the "Contract", is further amended, effective July 22, 1957, as follows:

1. Item 2 of Amendment No. 1 is deleted in its entirety.

2. In article 13 of the contract, paragraph (c) is revised to delete all actual costs, and to read:

   "Categories (1) through (7) of article 6(a) are deleted."

3. In Exhibit "A" of the Contract, the Estimated Costs of the Project, are revised to read as follows:

Stage I

Fixed Unit Costs[1/]

Bulldozer work on access roads and drill sites, 80 hours @ $15.00/hr.	$1,200.00
Rotary drilling:	
Holes from 0-100 feet in depth, 2,000 feet @ $3.40/ft.	6,800.00
Holes from 100-200 feet or more in depth, 500 feet @ $4.85/ft.	2,425.00
Moving drill and stand-by time, 33 hours @ $10.40/hr.	343.20

Chemical analyses for U_3O_8 content of 25 samples @ $5.00/sample	$ 125.00	
Estimated Total Cost Stage I		$10,893.20

Stage II

Fixed Unit Costs[1]

Rotary drilling holes 0-100 feet in depth, 1,000 feet @ $3.40/ft.	$3,400.00	
Crosscutting 400 feet @ $31.50/ft. or,	12,600.00	
Sinking 150 feet of prospect shafts at following costs:		
Headframe and accessories	$ 540.50	
Advance shaft:		
0 to 50 feet @ $47.50/ft.	2,375.00	
50 to 100 " @ $55.00/ft.	2,750.00	
100 to 150" @ $65.00/ft.	3,250.00	
150 to 199" @ $75.00/ft.	3,675.00	
Total cost headframe and shaft	$12,590.50	
Chemical analyses for U_3O_8 content of 23 samples @ $5.00/sample	$ 115.00	
Estimated Total Cost Stage II		$16,115.00

S U M M A R Y

Estimated Total Cost Stage I	$10,893.20
Estimated Total Cost Stage II	$16,115.00

Estimated Total Cost of Project (rounded) $27,008.00

Government Participation @ 75% $20,256.00

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank C. Johnson
ACTING Administrator, Defense Minerals
Exploration Administration

MIDLAND MINING COMPANY

By C. M. Houghton

Title President

1/ Categories (1) through (7) of the contract are deleted. The Fixed Unit Costs include all costs which would otherwise be allowable costs under these categories.

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Long
Sawyer
Murphy
Kucera
Chapelhow
Selfridge
Johnson

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 1

It is agreed this 11th day of October, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Midland Mining Company, hereinafter called the "Operator," that Exploration Project Contract No. Idm-E1097 (Docket No. DMEA-4619), dated June 3, 1957, hereinafter called the "Contract," is amended, effective July 22, 1957, as follows:

1. In Exhibit "A" of the Contract, all references to the type of drilling to be performed are changed from "rotary drilling" to "pneumatic drilling."

2. Under "Estimated Costs of the Project, Stage I and Stage II, Actual Costs, the following footnote is added to Category (1) Independent Contracts:

"2/ The Operator, if it so elects, is authorized to perform the drilling with its own equipment and personnel. If the work is performed by the Operator suitable records and accounts of the actual drilling costs shall be maintained. However, the unit costs per foot of drilling shown under the Estimated Costs of the Project will remain maximums under 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.

THE UNITED STATES OF AMERICA

By O. M. Mitchenor
Administrator, Defense Minerals Exploration Administration

MIDLAND MINING COMPANY

By C. M. Houghton

Title President

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MF-200
(Revised June 1954)

Docket No. DMEA 4619

Commodity Uranium

Contract No. Idm-E 1097

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 3 JUN 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] Midland Mining Company, incorporated in the State of Montana,

whose mailing address is 714 Midland National Bank Building Billings, Montana, 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 two maps.

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

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

(b) The Operator represents and undertakes that:

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

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(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 executed by Pryor Mining Company, dated March 25, 1957

(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 June 25, 1957 shall commence the work, and on or before February 1, 1958 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~xx shall have incurred 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 stage 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 $27,008.00 (rounded) The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $20,256.00: *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 necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than the agreed percentages 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.

CATEGORY (2)—PERSONAL SERVICES.

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

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

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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."

16—70617-1

Long
Dunigan
Appd. Sol. Off.
Murphy
Ellis
Chambers
Selfridge

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C. J. Mittendorf
Administrator, Defense Minerals
Exploration Administration

MIDLAND MINING COMPANY
(Operator)

By C. M. Hauptman

Title President

I, Donald F. Todd, certify that I am the Secretary-Treasurer ~~secretary~~ of the corporation named as Operator herein; that C. M. Hauptman 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.

Donald F. Todd

[CORPORATE SEAL]

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

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EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

ANNEX I

The land referred to in Article 2 of the Contract consists of Five (5) contiguous unpatented lode mining claims. Notices of location of the claims are recorded in the Carbon County Recorder's Office at Red Lodge, Montana, as follows:

Claim	Date recorded	Book	Page
Sandra	9-22-55	7	488
" (relocation)	12-22-55	8	195
Myrna	"	8	206
Wanda	"	8	210
Vi	"	8	207
Blonde Edna	"	8	198

The Operator is in possession of the land by virtue of "Lease and Agreement," executed October 19, 1956, with Pryor Mining Company, recorded December 18, 1956, on page 322 of Book 15 of Lease records, Carbon County, Montana.

A Consent to Lien and Subordination Agreement executed by Pryor Mining Company is attached and made a part hereof.

The claims are situated in unsurveyed sec. 33, T. 8 S., R. 27 E., M.P.M., Carbon County, Montana, as shown on the map entitled "Lode Claims of Pryor Mining Co. on Big Pryor Mountain...etc.,"attached hereto and made part hereof.

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

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

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator _____
Docket No. DMEA- _____
Contract No. Idm-E _____
Contract Date _____

CONSENT TO LIEN and SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of CARBON, State of MONTANA, described ~~XXXXXXXXXX~~ 2/

in a lease and agreement dated October 19, 1956 and recorded in Book 15 of Leases, Page 322, official records of said county.

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 25th day of March, 1957.

PRYOR MINING COMPANY	[Seal]	532 Howard Avenue, Billings, Montana	[Address]
by: George E. Guay, President	[Seal]	532 Howard, Billings, Mont.	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

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

Homer Guay
Secretary [Corporate Seal]
Pryor Mining Company

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

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 by means of rotary drilling, cross-cutting, drifting, and/or shafting.

The rotary drill holes shall be approximately $3\frac{1}{2}$ inches in diameter. (The Government will not participate in the cost of an incomplete hole.)

Cuttings from drill holes shall be collected for each two-foot interval and tested for radioactivity. Samples showing significant radioactivity shall be split into halves, and one-half shall be chemically analyzed for its U_3O_8 content and one-half stored in a suitable container properly identified as to hole number and depth interval the sample represents.

Mineralized sections of crosscuts, drifts, and/or shaft shall be channel sampled at 5-foot intervals. Samples shall be split into halves, one-half being chemically analyzed for its U_3O_8 content and the other half stored in a suitable container properly identified as to the location where the sample was procured.

The stored portions of the cuttings and other samples shall be for Government inspection and use. With Government approval the Operator may dispose of the stored samples.

Crosscuts and drifts shall be timbered as necessary and shall be not less than 5' x 7' in cross-section in the clear of timber. In the event a shaft is sunk in lieu of crosscutting or drifting, the shaft shall consist of a timbered hoisting compartment and a manway and shall be not less than 4' x 7' in cross section clear of the timber. The manway shall contain ladders and be protected from the hoisting compartment by lagging.

Construction of access roads and drill sites shall be performed with a D-7 Caterpillar dozer, or an equivalent unit of any other make.

The rotary drill holes shall be probed radiometrically and the drifts, crosscuts, and/or shaft shall be mapped geologically by the Operator. The Operator's monthly progress report shall include maps or sketches showing the location and extent of the work completed during the reporting period; also the assay values of the samples, and the rock structures encountered. The report shall also include the hole-probing data, together with the assay certificates of the cuttings samples, and the samples from the crosscuts, drifts, and/or shaft.

The location, direction, extent, and method of performing the work are subject to Government approval. The Operator shall employ a supervisor full time who shall direct the work and provide the technical services necessary to complete this contract in a satisfactory manner.

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. With previous written Government approval, unexpended funds and units of work remaining in Stages I and II may be interchanged to complete authorized work.

Stage I

Construct access road and drill sites, and drill not in excess of 20 holes at the approximate locations shown on the map, "Plate 2--Geologic Map of the Sandra Lode Claim...etc.," attached hereto and made part hereof. The three holes shown in the southwest corner of the Sandra claim shall not be closer than 50 feet to the outer boundary of the claim and the remaining seventeen holes shall not be closer than 100 feet to the outer boundary of the project area. It is estimated that 15 holes drilled to depths of approximately 100 feet and 5 holes drilled to depths of approximately 200 feet will be required to explore the anomalous radioactive areas and their possible extensions on the Sandra claim.

It is estimated that 80 hours of bulldozer time, 2,500 feet of rotary drilling, 33 hours of standby and drill moving time, and chemical analyses of 25 samples will be required to complete this stage.

Stage II

Drill not in excess of 1,000 feet of holes to follow mineralization trends disclosed by Stage I drilling; and 400 feet of crosscutting or 150 feet of shaft work; or part crosscutting and part shaft sinking, with total cost not to exceed $12,600.

Not more than 23 samples shall be chemically analyzed for their U_3O_8 content under this Stage.

Estimated Costs of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

80 hrs. bulldozer work on access roads and drill sites @ $15.00/hr.	$1,200.00	
Rotary drilling:		
1400 ~~2,000~~ ft. holes from 0-100 feet in depth @ ~~$2.90/ft.~~ 3.40	5,800.00	
410 500 ft. holes from 100 to 200 feet or more in depth @ $4.35/ft. 4.85	2,175.00	
Moving drill and standby time, 33 hrs. @ $10.40/hr.	343.20	$9,518.20

Fixed Unit Costs

Incidental allowance 1/ for each foot of drill hole completed, ~~2,500~~ 2310 ft. @ $0.50/ft.	$1,250.00	
Chemical analyses for U_3O_8 content of 25 samples @ $5.00 sample	125.00	$1,375.00
Total estimated Cost Stage I		$10,893.20

Stage II

Actual Costs

Category (1) Independent Contracts

Rotary drilling:

~~1,000~~ 104 feet, holes from 0 to 100 feet in depth @ ~~$2.90~~ 3.40/ft. — $2,900.00 — $2,900.00

Fixed Unit Costs

Incidental allowance 1/ for each foot of drill hole completed, ~~1,000~~ 104 ft. @ $0.50/ft. — 500.00

Crosscutting, 400 ft. @ $31.50/ft., or — 12,600.00 — $13,100.00

Sinking 150 feet of prospect shafts at following unit costs:

Headframe and accessories	$540.50	
Advance shaft 0 to 50 ft. @ $47.50/ft.	2,375.00	
Advance shaft 50 to 100 ft. @ $55.00 ft.	2,750.00	
Advance shaft 100 to 150 ft. @ $65.00/ft.	3,250.00	
Advance shaft 150 to 199 ft. @ $75.00/ft.	3,675.00	
Total cost headframe and shaft	$12,590.50	

Chemical analyses for U_3O_8 content of 23 samples @ $5.00/sample — 115.00 — 115.00

Total Estimated Cost Stage II — $16,115.00

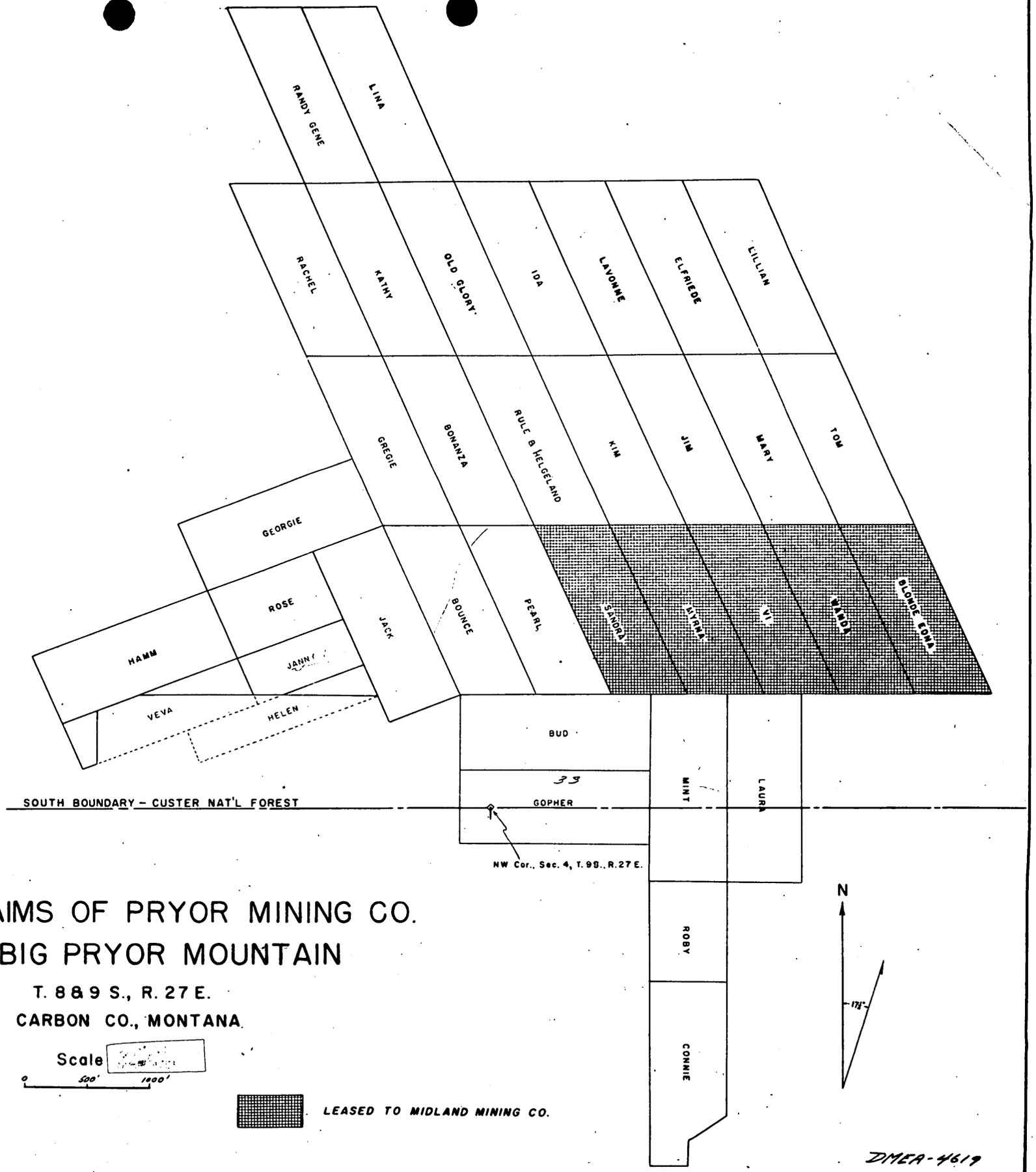
S U M M A R Y

Total Estimated Cost Stage I	$10,893.20	
Total Estimated Cost Stage II	$16,115.00	
Total Estimated Cost of Project (rounded)		$27,008.00
Government Participation @ 75%		$20,256.00

1/ Includes all costs of supervision, technical services, materials and supplies, depreciation, rental of surveying equipment, payroll taxes, and all other items of cost that might otherwise have been allowable costs under categories (2) through (7) of Article 6 (a) which have been deleted from this contract.

MIDLAND MINING CO.
DMEA application, Jan 19, 1957

Attachment No. 1a.



LODE CLAIMS OF PRYOR MINING CO. ON BIG PRYOR MOUNTAIN

T. 8 & 9 S., R. 27 E.

CARBON CO., MONTANA

Scale 0 500' 1000'

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
So. 157 Howard Street
Spokane 4, Washington

RECEIVED JAN 28 1957 D.M.E.A.

January 23, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: New application (Uranium - tyuyamunite)
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Selfridge:

Enclosed are three copies of an application for aid to explore for uranium in Carbon County, Montana. We have retained one copy for our files. Transparent overlays to accompany this application are being mailed under separate cover.

We are very much interested in this application as it is the first one we have received from this area which is in the Big Pryor Mountain district. This is a relatively new area in which tyuyamunite is found in and near limestone caves. While many of the caves are small, they are numerous, and some are fairly large. The ore is generally high grade. Although the only settlement sheet accompanying the application shows a grade of 0.19 percent U_3O_8, shipments from some of the other properties in the area have averaged as high as 2.0 or 3.0 percent U_3O_8.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

Enclosures
cc: USBM(2)
Geologist

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED
JAN 21 1957
U. S. GEOLOGICAL SURVEY
WASHINGTON

RECEIVED
JAN 28 1957
D.M.E.A.

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

Not to be filled in by applicant

Docket No. 4619
Metal or Mineral Uranium - Vanadium
Date Received 1-28-57
Estimated Cost $124,590
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Midland Mining Company, a Montana Corporation
714 Midland Nat'l Bank Bldg., Billings, Mont.
C. M. Hauptman, Pres., 714 Midland Nat'l Bank Bldg., William G. Mouat, Vice Pres., 805 Midland Nat'l Bank Bldg., Donald F. Todd, Sec'y-Treas., 714 Midland Nat'l Bank Bldg.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

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

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Five (5) contiguous claims in Sec. 33 (unsurveyed) T. 8 S., R. 27 E., named Sandra, Myrna, Wanda, Vi, and Blonde Edna. (See attachment No. 1 for title and public recording data pertaining to these claims.)

(*b*) State any mine name by which the property is known. Sandra Group

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee from Pryor Mining Co., a Montana corp. with principal offices in Billings, Montana.

(*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. (Attachment No. 2)

(*e*) If you own the land, describe any liens or encumbrances on it —

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. (Attachment No. 3)

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. (Attachment No. 3)

(*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. (Attachments Nos. 3 and 4)

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. (Attachment No. 3)

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. (Attachment No. 3)

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Tyuyamunite and other unidentified uranium minerals.

(*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. (Attachments Nos. 4 and 5)

(*c*) The work will start within 60 days and be completed within 18 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. (Attachment No. 5)

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.). (Attachment No. 6)

(*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. (Attachment No. 6)

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. None. All contracted

(*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. None. All contracted

(*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. None

(*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. (Attach. No.6)

(*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. (Attachment No. 6)

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above. (Attach. No. 6)

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)? Yes

(*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. (Attachment No. 6)

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 January 19, 1957, 1957

MIDLAND MINING COMPANY
(Applicant)

By C. M. Hauptman
C. M. Hauptman, 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

Attachment No. 2

Chronology of Title Status of the Sandra Group of Lode Mining Claims as indicated by the public records of Carbon County, Montana at the town of Red Lodge, the county seat of Carbon County.

1. Certificate of Location of the Sandra Claim, located Sept. 1, 1955 by Geo. E. Guay and Corwin Rule, filed for record Sept. 29, 1955 in Book No. 7 of Lode Locations, Page 488.

2. Certificate of Relocation of the Sandra Claim, located on Sept. 1, 1955 by Geo. E. Guay and Corwin Rule, filed for record Dec. 22, 1955 in Book No. 8 of Lode Locations, Page 195.

3. Certificate of Location of the Myrna Claim, located Oct. 25, 1955 by Robert Ludwick, Edward Gregorich, Cal Feeley and Leo Kowalczyk, filed for record Dec. 22, 1955 in Book No. 8 of Lode Locations, Page 206.

4. Certificate of Location of the Wanda Claim, located Oct. 25, 1955 by Robert Ludwick, Edward Gregorich, Cal Feeley and Leo Kowalczyk, filed for record Dec. 22, 1955 in Book No. 8 of Lode Locations, Page 210.

5. Certificate of Location of the Vi Claim, located Oct. 25, 1955 by Robert Ludwick, Edward Gregorich, Cal Feeley and Leo Kowalczyk, filed for record Dec. 22, 1955 in Book No. 8 of Lode Locations, Page 207.

6. Certificate of Location of the Blonde Edna Claim, located Oct. 25, 1955 by Robert Ludwick, Edward Gregorich, Cal Feeley and Leo Kowalczyk, filed for record Dec. 22, 1955 in Book No. 8 of Lode Locations, Page 198.

7. Quit Claim Deed executed on Feb. 7, 1956 by Geo. E. Guay and Corwin Rule transferring Sandra Claim to Pryor Mining Co., filed Feb. 7, 1956, in Book No. 74 of Deeds, Page 72

8. Quit Claim Deed executed on Aug. 20, 1956 by Bob Ludwick, Elfriede M. Ludwick, Cal. Feely, Allie Feely, Edward Gregorich and Leo Kowalczyk transfering the Myrna, Wanda, Vi and Blonde Edna Claims to Pryor Mining Co., filed Dec. 17, 1956 in Book No. 74 of Deeds, Page 371.

9. Lease and Agreement executed Oct. 19, 1956 by and between the Pryor Mining Company and Midland Mining Company, filed Dec. 18, 1956 in Book No. 15 of Leases, Page 322.

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JAN 28 1957
D.M.E.A.

4. Physical Description

(a) Exploration activities on this property have been confined almost entirely to the Sandra Claim. The Sandra Claim and the west edge of the adjoining Myrna Claim have been explored in some detail with scintillation counters and geiger counters. The most extensive survey was made by geologists of the Atomic Energy Commission who produced the geologic map (Attachment No.4) and the radiometric overlay map (Attachment No. 4a.) included in this application.

The Midland Mining Co. drilled and blasted a small cave-like excavation into the side of the cliff face at about the center of the Sandra Claim. This work was done on an exposure of limestone well mineralized with tyuyamunite. The rock removed from this excavation was carelly hand-selected and the ore grade material, slightly more than 10 tons, was trucked to the AEC buying station in Riverton, Wyoming. No other mining activities have been attempted on the five claims.

(b) The only production from this property has been the trial shipment mentioned above. A copy of the settlement sheet of this shipment is enclosed with this application (Attachment No. 3a.). Ore reserves on this property are unknown.

(c) The five lode mining claims considered in this application are astride the crest of Big Pryor Mountain, one of the large fault block features which form the Pryor Mountain range (Attachment No. 3b). The Big Pryor Mountain fault block has the typical topography of such structures in that the crest is very sharp with a steep fault-scarp face on the east side and a more gentle long dip-slope to the west. At the location of the Sandra group of claims, the displacement on the Big Pryor fault is approximately 2000 ft. Erosion has stripped most of the softer sedimentary beds away so that the present surface is predominantly Madison limestone with scattered remnants of the overlying Amsden formation. The east face of the mountain, the fault scarp, is mantled with slope wash with few bed rock outcrops.

To date, all of the major discoveries of uranium mineralization in the Pryor Mountains and vicinity have been in the upper part of the Madison limestone. In this region, the Madison limestone is approximately 600 ft. thick. The upper 150 to 200 feet of this formation is strongly jointed and fractured and contains many caves, both ancient and recent. Pre-Amsden caves and fissures are largely filled with brecciated Amsden debris.

The Madison outcrop on the Sandra group of claims contains the typical features of the region mentioned above; that is, fracturing, caves, and breccia fill. In addition, the limestone

has undergone varying degrees of silicification, particularly along fractures and minor faults. This situation is well illustrated on the enclosed AEC map of the Sandra claim (Attachment No. 4). Valuable uranium deposits have been discovered under similar conditions at the Old Glory Mine about ½ mile north of the Sandra group and at a number of locations ½ to 1 mile south of the Sandra group. Exploration activities at these locations have however been rather superficial thus far.

The only identified uranium mineral found in this district is tyuyamunite, calcium uranium vanadate, although the presence of other uranium minerals is suspected. The mineralized rock is radiometrically out of balance; that is the uranium equivalent is generally about half of the uranium content shown by chemical analysis. The deposits so far known are irregular and unpredictable, appearing to be controlled largely by caverns. Fluorite is commonly associated with the uranium mineralization and traces of other metallic elements have been determined by spectographic analysis. A hydrothermal origin of the uranium mineralization is postulated due to the strong silicification, association with minor joints and faults, and the almost invariable occurrence near major structural features.

The Midland Mining Co. has two reasons for desiring to explore on the Sandra group of claims. First, it wishes to explore the upper part of the Madison formation exposed on the Sandra and Myrna claims. Concentrations of visible uranium minerals have been found in a large number of places on these two claims. The radiometric map of a portion of the Sandra claim (Attachment No. 4a.) indicates a concentration of uranium-bearing rock even where visible mineral is not found. Second, the Midland Mining Co. wishes to undertake deeper exploration to determine if commercial deposits of uranium mineral exist in or near the major Big Pryor Mountain fault, which, it seems reasonable to believe, was a controlling factor of the mineralization in this area.

(d) The Sandra group is readily accessible by a network of good to fair roads. The nearest shipping point on the railroad is at Warren, Montana, approximately 15 miles to the west. Two thirds of this distance is on good graveled county roads. The other third is on typical mountain mining roads, passable at all times except during occasional rain storms. These roads could easily be improved and maintained to be passable the year around. Major source of supply for this area is Billings, Mont., approximately 90 miles to the north. Limited supplies are available at the small towns of Bridger, Montana, 25 miles to the northwest and Lovell, Wyoming, 20 miles to the southwest. These two towns, Lovell and Bridger are also the nearest residence points.

(e) A plentiful supply of manpower is available in the immediate area. Many experienced miners, drillers, etc. have asked for jobs in this area. Mining materials and supplies are available at Billings and Butte, with the nearest facilities for unloading from the railroad at Lovell, Wyoming. Thick stands of timber for mining purposes are readily available. At the present, power must be supplied by gasoline or deisel driven equipment or by electric power plants at the site. Only a few miles of pole line would be necessary to bring in REA power. Water is in short supply and now must be hauled from Warren, Montana. A few springs several miles to the north could be developed to supply water for drilling and camp purposes.

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Form 0-4 (Rev.) 20M 9-56 W&Y

MIDLAND MINING CO.
DMEA application, Jan. 19, 1957

WESTERN URANIUM PROJECT

LUCIUS PITKIN INC.

Ore Purchasing Agent for United States Atomic Energy Commission

Attachment No. 3a.

Receiving Station Riverton — Grand Junction, Colorado December 29, 19 56

Liquidation No. 2568 — Lot No. 998 — Shippers Lot No.

Bought of Midland Mining Company — A.E.C. License No. P-3375

Address 714 Midland National Bank Building; Billings, Montana

Type of Ore Uranium Bearing — Contract No. — Date Received 11/27/56

Mining Claim Sandra — Mining District Unorganized — Pile No. 3

County: Carbon — State: Montana — Locality: Pryor Mts.

Lot No.	Wet Weight Pounds	H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS U_3O_8	SETTLEMENT ASSAYS V_2O_5	SETTLEMENT ASSAYS $CaCO_3$	SETTLEMENT ASSAYS Cu	CONTENTS POUNDS U_3O_8	CONTENTS POUNDS V_2O_5	CONTENTS POUNDS $CaCO_3$	CONTENTS POUNDS Cu
998	20,590	2.00	20,178	0.19	0.34	43.9		38.34	[illegible]	9867.	

U308	Per Lb.	Per Ton	Short Tons	Total Value
0.19% = 3.8# at	3.30	12.54	10.0890	126.52
Development allowance 3.8# at	.50	1.90	"	19.17
TOTAL U308 PAYMENT		14.44	10.0890	145.69
Haulage allowance 200 miles @ 66¢ per wet ton mile			10.2050	61.77
TOTAL GROSS PRICE				207.46
Deductions:				---
NET PROCEEDS				207.46

Correct MJC
Checked OMK
Approved HGK

Paid: 12/21/56
Vo. No. 12/265
Check No. 3788

RECEIVED JAN 28 1957 D.M.E.A.

I certify that I am the lawful owner or authorized Representative of the Lawful Owner, of the Ore described in this Settlement Sheet and have legal right to deliver the same to the Commission.
I certify that I hold A. E. C. Source Material License numbered above.
I hereby transfer to the Commission, effective as of the date of delivery of the ore, all my right, title and interest in and to said ore.
I will accept the amount as shown above as "Total Gross Price" in full settlement for sums due to me on account of the ore deliveries described herein.

Buyers assays govern if Seller fails to submit his assays prior to acceptance of payment.

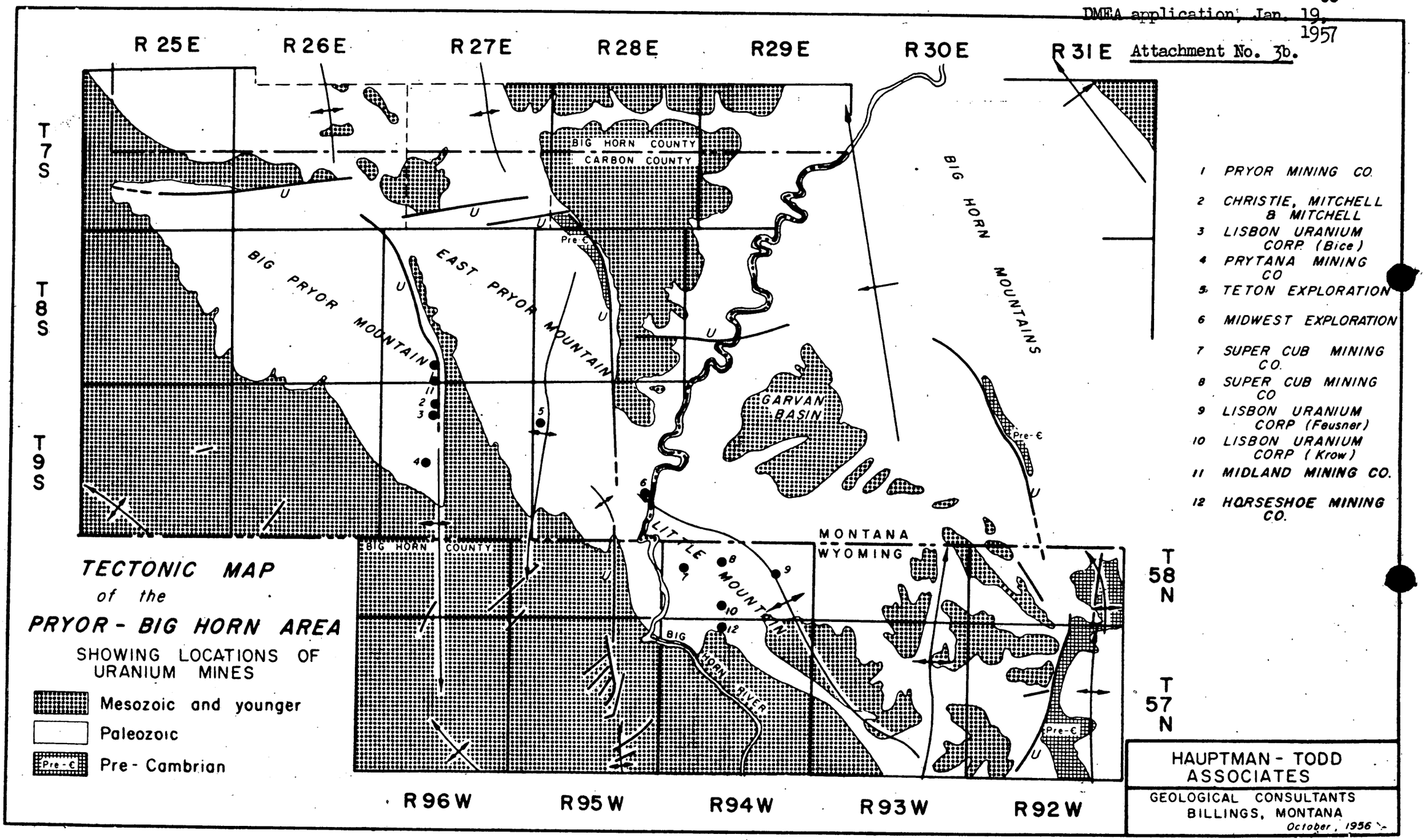
All rates paid are based on U. S. Atomic Energy Commission Published Schedules unless otherwise provided in contract applicable to ore delivery described herein.

Midland Mining Company
Seller or Agent
By C. W. Hamilton
Title President

MIDLAND MINING CO

DMEA application, Jan. 19, 1957

Attachment No. 3b.



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5. The Exploration Project

The proposed work on the Sandra group is to be done in two phases. Phase 1, the drilling project, is to determine if possible the configuration of the potentially ore-bearing zone. Because the deposits fit into neither the true vein nor the bedded deposit catagories, an estimate of how the ore-bearing zones might run is almost impossible. Drilling alone, however, will not delineate the ore bodies sharply enough. Therefore the second phase of the exploration program, the running of exploratory drifts, will be undertaken based on the result of the drilling program.

The first locality to be explored by drilling is in the area of visible mineralization as shown on the geologic map of the Sandra claim and the radiometric overlay map of this same area (Attachments 4 and 4a.) The drill holes in this area should average about 200 ft. in depth. If, however, certain of these drill holes are in mineralized rock at that depth, they should be continued in an effort to establish whether or not mineralized zones along faults and fractures are present below the 200 ft. cavernous interval at the top of the Madison formation. On the accompanying geologic map (Attachment No. 4), the locations of the proposed drill holes are spotted as green circles. The holes with first priority are indicated by double circles. These drill holes are located to test the radiometric anomalies as indicated on the radiometric grid map. The balance of the holes would then be drilled to determine the extent of uranium mineralization in the silicified zones in the Madison limestone in this local area. Approximately 40 drill holes are desired in this local area.

The balance of the exploration drilling is proposed to test the major fault to the east on the Vi claim and the intervening ground between this fault and the Madison outcrop on the Myrna claim. This portion of the drilling would be undertaken after the drilling of the mineralized outcrops on the Sandra and Myrna claims. Approximately 15 holes would be drilled in this area.

Experience has proved that difficult drilling conditions can be expected during this project. The pure, dense limestone of the Madison drills easily as does the compact silicified rock. The difficulties arise from chert nodules; highly fractured rock, causing wedging behind the drill bit; caverns, which cause lost circulation, whether the circulating medium is air or water; and poorly unconsolidated sand and silt in caves. This last - mentioned material is often the source of high grade ore.

Because of the topography, the nearly constant use of a bulldozer will be necessary. All drill locations will have to be leveled and access roads built to the sites. This will be especially true on the east ½ of the Sandra and the rest of the claims to the east where the surface slope is from 25° to 35°.

Phase 2, the tunneling phase, will not be undertaken until the drilling program is nearly completed. The purpose of this plan is to direct the driving of tunnels at the most advantageous location to avoid unnecessary work and to take advantage of the topography. Because of this last-mentioned topography, nearly all the underground work can be done by norizontal drifting, raising, and stoping. No shaft sinking is anticipated. The drift footage requested, 1000 ft., is a general figure which may be subject to considerable modification depending on the results of the drilling. The present figure is based, however, on an upper tunnel approximately 300 ft. long and a lower tunnel approximately 700 ft. in length, the portal of which would be 300 to 400 ft. down the mountain slope from the first tunnel.

(d) None of the personnel has had any experience in actual mine operation previous to this last year. Mr. Mouat, however, is a lawyer of long mining law experience and has an active interest in a producing metal mine in north central Montana. C.M. Hauptman will supervise the exploration under this program. He is a partner in the firm of Hauptman-Todd, Assoc., a geological consulting firm of Billings, Montana. Mr. Hauptman has had nine years of geological experience in the petroleum and mining industries, the last three years of which have been almost exclusively mine and metallic mineral property exploration and evaluation.

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JAN 28 1957
D.M.E.R.

6. Estimate of Costs

(a) Independent contracts

Drilling	
Truck mounted rotary	
0-100 ft. $2.90/ft.	
100-200 ft. 4.35/ft.	
av. $3.13/ft.	
Cost for 12,000 ft (60-200 ft. drill holes)	$37,560
Coring 15.00/ft.	
Cost for est. 500 ft.	7,500
Moving and standby time—$10.40/hr.	
80 hrs.	1,840
Bulldozer	
D-7 $15.00/hr.	
Av. 30 hr. per wk.	
Est. 20 wks. 1957, 10 wks. 1958	
30 wks. at 30 hrs./wk.	13,500
Tunneling	
Drifting $31.50/ft. (contract)	
Timbering 12.00/ft. (contract)	
Total per ft. $43.50 ft.	
Cost for 1000 ft. tunnel	43,500
Total cost for independent contracts	$103,860

(b)

Drilling crew— 2 (contract)	
Dozer operator — 1 (contract)	
Geologists asst. — 1 $15.00 per day and board and room (35 wks. 5 day)	2,625
Laborers and cook — 3 $15.00 per day and board and rm.	7,875
Geol. and Eng. consult. — $500/mo. (6 mo)	3,500
Board and rm. $3.00 per man/day 35 wks. 6 day/wk.	3,150
Total labor costs	$17,150

(f)

Small bunkhouse—equipped	1,000
Compressor and change shed	850
Total new bldgs. and improvements	$ 1,850

(g)

Analytical work	500
Accounting	900
Workmens' Comp.	170
Payroll taxes	120
Total misc. expenses	$1,690
Grand Total — Costs	$124,590

6.

(h) To be considered upon an offer of a contract

7.

(b) Midland Mining Co. has approximately $15,000 set aside in the treasury to be applied to this project. This amount should be sufficient to pay the company's proportionate share of the first or drilling phase. At the time that the second or drifting phase is to start, additional funds will be available to cover Midland Mining's share of the cost.

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JAN 28 1957
D.M.E.A.

MIDLAND MINING CO.
DMEA application, Jan. 19, 1957

Attachment No. 1

LEASE AND AGREEMENT

THIS AGREEMENT made and entered into this 19th day of October, 1956, by and between Pryor Mining Company, a Montana corporation, Party of the First Part, and Midland Mining Company, a Montana corporation, Party of the Second Part;

WITNESSETH:

That for and in consideration of the sum of One Dollar ($1.00) to each of the parties hereto in hand paid by the other, receipt of which is hereby acknowledged, and in further consideration of the mutual covenants herein expressed, it is hereby agreed by and between the parties hereto as follows:

1. First Party agrees to lease and let unto Second Party and Second Party agrees to lease from First Party, the following enumerated lode mining claims situated in Township 8 South, Range 27 East, Montana Principal Meridian, said claims being located in Carbon County, Montana:

Sandra Lode Mining Claim
Myrna Lode Mining Claim
Vi Lode Mining Claim
Wanda Lode Mining Claim
Blonde Edna Lode Mining Claim

said claims being the property of the First Party hereto.

2. The term of this lease shall be for five (5) years from and after the date hereof and as long thereafter as ores or minerals, or either of them, are produced from the aforesaid mining claims, or any of them, in commercial quantities.

3. The Second Party agrees to furnish all labor and material to prospect, explore, develop and operate the said mining claims, and any operation conducted thereon shall be under the complete and sole direction of the said Second Party.

4. Second Party agrees to pay to First Party as consideration for the execution of this lease, a return of fifty

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JAN 23 1997
D.M.E.R.

per cent (50%) of the net profit from the ores or minerals produced and marketed from the aforesaid lode mining claims; however, any mine development allowance or haulage allowance paid or to be paid or allowed by the Atomic Energy Commission or any governmental or other agency, shall not be considered in arriving at net profit.

5. It is agreed by and between the parties hereto that Second Party shall have the joint right to the use of the existing access road leading to the Sandra lode mining claim.

6. In the event no purchaser is available to purchase the ores produced from the aforesaid mining claims, at any time during the term of this agreement, such term shall be automatically extended for a period of time sufficient to allow Second Party to procure a purchaser for the said ores or minerals.

7. This agreement shall extend to and be binding upon and inure to the benefit of the successors and assigns of each of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed on the day and year first above written.

PRYOR MINING COMPANY

By [signature]
President

Attest:
[signature]
Secretary

MIDLAND MINING COMPANY

By C. M. Hampton
President

Attest:
[signature]
Secretary

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JAN 28 1957
D.M.E.A.

STATE OF MONTANA)
) SS
COUNTY OF YELLOWSTONE)

On this 19th day of October, 1956, before me, the undersigned, a Notary Public for the State of Montana, personally appeared C. M. Hauptman, known to me to be the President of the Midland Mining Company, the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same for the purposes therein stated.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My commission expires:
Oct. 21-1957

Jennie E. Lowry
Notary Public for the State of Montana, residing at Billings, Montana

STATE OF MONTANA)
) SS
COUNTY OF YELLOWSTONE)

On this 19th day of October, 1956, before me, the undersigned, a Notary Public for the State of Montana, personally appeared George E. Guay, known to me to be the President of Pryor Mining Company, the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same for the purposes therein stated.

My commission expires:
Oct 21-1957

Jennie E. Lowry
Notary Public for the State of Montana, residing at Billings, Montana

RECEIVED
JAN 28 1957
D.M.E.A.

1360

State of Montana
County of Carbon } ss.
Office of the County Clerk & Recorder

I hereby certify that the within
Lease Assignment was filed for record on
the 18 day of Dec A. D. 1956
at 10:55 o'clock A. M. and is recorded on
page 322 of book 15 of Lease
records of Carbon County, Montana.

Attest my hand and the seal of
said County.

Clerk and Recorder

By _____ Deputy

Fees $ 2.00

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JAN 28 1957
D.M.E.A.

Granwell

PROJECT SUMMARY REPORT

By: F. M. Murphy March 30, 1960 see page 3

1. Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097

Operator - Midland Mining Company
C. M. Hauptman, President
207 Hedden Building
Billings, Montana

Operator's Property Rights -

Lessee of Sandra, Myrna, Wanda, Vi, and Blonde Edna unpatented lode mining claims situated in unsurveyed sec. 33, T. 85, R. 27E, M.P.M., Carbon County, Montana.

2. Contract dated June 3, 1957

Amendments -

No. 1, dated October 11, 1957, changes drilling from "rotary" to pneumatic and allows Operator to perform the drilling if it so elects.

No. 2, dated November 1, 1957, changes all cost to fixed unit costs. The total contract cost remains the same.

No. 3, dated January 21, 1958, extends completion date to August 1, 1958, and the royalty repayment to 11 years.

No. 4, dated February 17, 1958, allows drifting and winzing ~~raising~~ as well as crosscutting. No change in costs.

No. 5, dated August 15, 1958, allows recess period to October 1, 1958; extends completion date to February 1, 1959, and the royalty period to 12 years.

No. 6, dated December 12, 1958, allows recess period to June 1, 1959, extends completion date to September 1, 1959. Item 3 contains a termination and pseudo-certification clause.

No. 7, dated March 27, 1957, in addition to the other work it allows the Operator to do some raising. No change in total cost of contract.

3. Work authorized and completed -

STAGE I

Item	Authorized	Completed	Unit Cost	Total Cost
Bulldozing	80 hrs.	80 hrs.	$15.00/hr.	$1,200.00
Rotary drilling				
0' - 100'	2,000 ft.	1,900 ft.	3.40/ft.	6,460.00
100' - 200'	500 ft.	410 ft.	4.85/ft.	1,988.50
Standby time	33 hrs.	33 hrs.	10.40/hr.	343.20
Chemical analyses	25 samples	25 samples	5.00/ea.	125.00
Total cost				$ 10,116.70

STAGE II

Drilling 100-ft. holes	1,000 ft.	104 ft.	$3.40/ft.	$353.60
Crosscutting, Winzing, Drifting, Raising	400 ft.	383 ft.	31.50/ft.	12,064.50
Chemical analyses	23	5	5.00/ea.	25.00
Total cost				$ 12,443.10

Total amount of contract	$27,008.00
Total amount expended	$22,559.80
Government participation @ 75%	$16,919.85

4. Certification not recommended.

5. Audit report of Review, dated March 9, 1960.

Total cost billed by Operator	$22,559.80
Total acceptable cost	$22,559.80
Payable on audit claim	$16,919.85

The Government has no equity in equipment used on the project.

6. Final Reports -

Operator's report received March 14, 1960. The report is acceptable.

Field Team's report received March 22, 1960. The field examiners and Field Team recommend that the project should not be certified.

Excerpts from Joint Final Engineering and Geologic Report, dated February 1960, by S. W. Zoldok, USBM, and R. D. Sample, USGS:

The Sandra claim, where all the exploration work was done, lies at or near the crest line of Big Pryor Mountain and within half a mile of the north-south trending major fault bounding the east side of the mountain. Most of the uranium prospects in the near vicinity are on this crest line and appear to parallel roughly the major faulting and folding.

The object of the project was to explore for uranium deposits that occur in this area in filled and recemented solution caverns in Madison Limestone of Mississippian age.

Under the contract, 20 holes were drilled along the crest line of Big Pryor mountain over a lineal distance of about 600 feet. The south-half was explored by a single line of six holes, only one of which showed radioactivity. In the northern half, the holes were spread laterally and seven holes showed some radioactivity.

To explore the favorable area, an adit was started from surface about due north. The best hole (No. 13) was intercepted at 165 feet of which only 120 feet was allowed under the contract. From Hole 13 two short crosscuts were driven to Holes 9A and 11. The uranium mineralization was found to occur in the cavern debris as stringers and small lenses.

On the basis of present exposures, not over 100 to 200 tons of material assaying a little better than 0.20% U_3O_8 can be inferred.

During the exploration the Operator mined and shipped, 28.35 tons of ore assaying 0.18% U_3O_8, for which the Government received $27.38 as its royalty. An additional small tonnage of like grade is stockpiled.

17.588 @ .31%

As of Mar. 19, 1960, Opr. had paid $69.19 in royalty. Also opr. Mar. 10, 1960, lts. states no ore stockpiled. Sallust 9/8/60

Comments by Washington Office -

The Division of Minerals concurs in the Field Team's recommendation that the project should not be certified. James Paone, USBM, Commodity Member, in a memorandum dated March 24, 1960, also concurs.

The project was delayed due to inadequate financing on the part of the Operator; however, the work was done in a competent manner.

There is little possibility that the limestone caverns in the subject area contain significant uranium deposits. Any request for Government aid in exploring for such deposits should be denied.

Fred M. Murphy

FMMurphy:kb - March 31, 1960
Copy to: Director's reading file
Mr. Murphy
Chron.

MME Form 17
Mar. 59

OFFICE OF MINERALS EXPLORATION

WORK COMPLETED ANALYSIS

___ Certified
No

After final audit or review report is received, prepare in duplicate. File original in official docket. Send copy to Code 210.

Operator: Midland Mining Company

Actual Cost

State: Montana, Carbon County

Agreed Unit Cost: X

Final Report of Audit

Commodity: Uranium

Docket No. DMEA-4619

Final Report of Review: March 9, 1960

Contract No. Idm-E1097

Type of Work (Use these categories only)	Authorized by Contract and Amendments		Completed and Paid for		Net cost after sale of Gov't. Property
	Units	Cost 1/	Units	Cost 1/	
Drifting & Crosscutting	400	12,600	383	12063	12064.30
Raising					
Shafts					
Winzes					
Drilling (Specify) Rotary	3500	12,968	1414	9145	9145.30
Surface Excavation Bulldozing		1200		1200	1200.00
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Analyses U_3O_8		240		150	150.00
Totals		$ 27,008		22,560	2/ $22,559.80

1/ Round off to dollars.
2/ Net cost total must agree with final report of audit or review.

Prepared by: Jay Murphy Date 3/27/60

52616

OFFICIAL FILE COPY O. M. E. RECEIVED MAR 28 1960		
DATE	INITIALS	CODE
3/28	gad	VVO
3/28	Murphy	500

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

Date March 24, 1960
OME Docket No. 4619
OME Contract No. IDM-E1097
Commodity Uranium
Name of Applicant Midland Mining Company
Location of Property Carbon County, Montana
Estimated Cost of Project $22,559.80

Memorandum

To: W. R. Griswold, Chief, OME
Division of Minerals

From: James Paone, Bureau of Mines Member
Uranium Commodity Committee

Subject: Review of Field Team Final Report
(Applications, Field Team Report, etc.)

1. Date of subject document: 3/15/60. 2. Date received by reviewer: 3/23/60.

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 ☐
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). No certification recommended.

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 21 1960

DATE	INITIALS	NOTE
3/21	RCW	225
3/24	[illegible]	500
	[illegible]	500

So. 157 Howard Street
Spokane 4, Washington
March 18, 1960

Memorandum

To: Chief, Fiscal Section, Office of the Secretary
Department of the Interior, Washington, D. C.

From: Executive Officer, OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

Enclosed is the original of a Report of Review in lieu of a final audit of the subject contract. The Operator's copy of this Report of Review was sent to him on March 15, 1960, at the same time notifying him of the balance of $199.99 due him but which could not be paid until the payment of royalty due the Government on a second shipment of ore mentioned in the Operator's final report.

We received a check covering this royalty on March 17 which was transmitted to you on the same day.

We request that you release the $199.99 balance due the Operator as shown by this Report of Review.

A. E. Weissenborn

Enclosure

cc: Contract Adm. & Audit Div., OME, w/cy incoming letr. 3/10/60
OME(2) w/cy incoming letr. 3/10/60
USBM(2)
Sample
Director's Reading File
CPF

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 21 1960

DATE	INITIALS	CODE

No. 157 Howard Street
Spokane 4, Washington
March 18, 1960

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4519 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-U1097

Dear Mr. Hauptman:

Thank you for your letter of March 10 enclosing your check for royalty due the Government together with the related papers, which are being returned to you as requested.

We will request the Fiscal Section, Office of the Secretary, Washington, D. C., to release the balance of the $199.99 due Midland Mining Company in accordance with the Report of Review dated March 9, a copy of which was sent to you on March 15.

Sincerely yours,

A. L. Weissenborn
Executive Officer, OME
Field Team Region I

Enclosures

cc: Fiscal Section
Office of the Secretary

Contract Adm. & Audit Div., OME

OME(2) ✓
USBM(2)
Sample
Director's Reading File

OFFICIAL FILE COPY O. M. E. RECEIVED MAR 21 1960		
DATE	INITIALS	CODE
3/21	RCW	225
3/23	[illegible]	800
3/23	Murphy	500

So. 157 Howard Street
Spokane 4, Washington
March 17, 1960

Air Mail

Memorandum

To: Chief, Fiscal Section, Office of the Secretary
Department of the Interior, Washington, D. C.

From: Executive Officer, OME Field Team, Region I

Subject: Transmittal of royalty payment
Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097
Appropriation 14x4401 DMEA

Enclosed is Check No. 486 in the amount of $41.81 dated March 15, 1960, drawn on the Security Trust & Savings Bank, Billings, Montana, which has been received from the captioned Operator on ore shipped by them from their Sandra claim as follows:

Bonus, Lot 33-S	$316.39	5%	$15.82
Buyer, Lot 1102-S	411.82	5%	20.59
Bonus, Lot 1102-S	108.05	5%	5.40
Total royalty due			$41.81

Copies of correspondence regarding this transaction are also enclosed together with copies of the Operator's AEC Application for Bonus Payment forms and settlement sheets.

A. E. Weissenborn

Enclosures

Distribution:
Mr. C. M. Hauptman, President
Midland Mining Co.
207 Hedden Building
Billings, Montana

OME(2) w/cy encls.
USBM
CPF
Royalty File

Director's Reading File
Chrono

3

DMEA royalt.

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

FD:DBH

January 21, 1960

Midland Mining Company
207 Hedden Building
Billings, Montana

Subject: APPLICATION FOR BONUS PAYMENT - D.U.P. 06-C-668

Gentlemen:

The subject application for bonus payment in the amount of $273.18 is returned to you for the reason that there are only 30.87 pounds U_3O_8 remaining eligible for bonus payment. The use of 30.87 pounds U_3O_8, covered by Liquidation No. 554, will deplete 10,000 pounds certified as eligible to receive bonus payments.

Please make the necessary corrections on the returned application by striking through the figures to be corrected, inserting the proper figures, and initialing same.

Very truly yours,

for Lewis W. Stock, Chief
Accounting Branch
Finance Division

Enclosure:
Application

Form AEC-300 A
(6-51)

Form approved.
Budget Bureau No. 30-R068.1.

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: MIDLAND MINING COMPANY
2. MAILING ADDRESS: 207 Medden Bldg. Billings, Montana
3. NAME OF MINING PROPERTY: Pryor Group - Sandra Claim
4. MINING DISTRICT: Pryor Mts. (unorganized)
5. DATE: March 23, 1959
6. AEC LICENSE NO.: F-3375
7. MINING PROPERTY CERTIFICATION NO.: D.U.P. Cb-Cb66

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 Fremont Minerals, 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
Apr. 24, 1958	39	50 & 51	26.350	0.18	102.06	$3.10	$316.39

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

TOTAL, $ $316.39

MIDLAND MINING COMPANY

C. M. Hampton March 23, 1959 President

FOR USE BY ATOMIC ENERGY COMMISSION ONLY

ACCOUNTING CLASSIFICATION	AMOUNT

MONT MINERALS, INC.

[redacted]

ARMERS UNION BUILDING
ENVER 1, COLORADO

SETTLEMENT STATEMENT

LIQUIDATION NO
DISTRICT Riverton
DATE April 24, 1958

DATE RECEIVED 4/7/58 LOT NO 33-8 SHIPPER'S LOT NO

A E C LIC NO P-3375 CONTRACT NUMBER

RECEIVED OF Midland Mining Co.

CLAIM NAME Sandra STATE Montana

SHIPPERS ADDRESS 207 Hedden Bldg. - Billings, Montana

MINE DIST Unorganized COUNTY Carbon

TYPE ORE

HAULAGE DISTANCE 100+ TO PROCESS TO STOCKPILE 19 4/9/58

LOT NO	WET WEIGHT (LBS)	% H_2O	DRY WEIGHT (LBS)	SETTLEMENT ASSAYS (%) U_3O_8	V_2O_5	$CaCO_3$		CONTENTS (LBS) U_3O_8	V_2O_5	$CaCO_3$	
33-8	60,070	5.61	56,700	0.18		15.82		102.06		8969.94	
WET TONS	30.035	DRY TONS	28.350								

ITEM		TONS	POUNDS	UNIT PRICE	AMOUNT
BASE PRICE			102.06	3.10	316.39
PREMIUMS U_3O_8 IN EXCESS OF 4 LB /TON				0.75	
U_3O_8 IN EXCESS OF 10 LB /TON				0.25	
TOTAL U_3O_8 PAYMENT					316.39
PENALTIES LIME ($CaCO_3$ IN EXCESS OF 6%)	[-]				[ ]
OTHER	[-]				[ ]
TOTAL FOR ORE					316.39
[redacted]				[redacted]	
DEVELOPMENT ALLOWANCE			102.06	0.50	51.03
HAULAGE ALLOWANCE 100+ MILES		30.035		0.06	180.21
TOTAL [redacted] ALLOWANCES					231.24
TOTAL GROSS SETTLEMENT					547.63
DEDUCTIONS: DMEA payment	[-]				[27.38]
NET SETTLEMENT					$520.25

DISTRIBUTION

PAYEE	AMOUNT	CHK NO
DMEA	$ 27.38	50
Midland Mining Co.	520.25	51
		4/24

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

Approved

[redacted]

[redacted]

LOUNSBURY NO. 554
DISTRICT Riverton
DATE Jan. 6, 1960

SETTLEMENT STATEMENT

DATE RECEIVED 11-9-59 LOT NO. 1102-8 SHIPPER'S REF. NO. A.E.C. NO. P-4234 CONTRACT NUMBER

RECEIVED OF Midland Mining Co. CLAIM Sandra STATE Montana

SHIPPER'S ADDRESS 207 Hedden Bldg., Billings, Montana NEAR Butte COUNTY Carbon

TO PROCESS

PURCHASE 100 % TO STOCK PILE Hold 12/8/5

LOT NO.	WET WEIGHT (LBS.)	% H_2O	DRY TONS (LBS.)	SHIPMENT ASSAY (%) U_3O_8	SHIPMENT ASSAY (%) CaO_2		SETTLEMENT ASSAY (%) U_3O_8	SETTLEMENT ASSAY (%) CaO_2	
1102-8	26,280	4.20	25,176	0.31			78.05		
WET TONS	13.140	DRY TONS	[illegible]						

ITEM	TONS	POUNDS	RATE	AMOUNT
BASE PRICE	13.588	78.05	3.50	273.18
PREMIUM: U_3O_8 IN EXCESS OF 4 LB./TON		x 2.20	0.75	20.77
U_3O_8 IN EXCESS OF 10 LB./TON			0.25	
TOTAL U_3O_8 PAYMENT				293.95
PENALTY [−]				
TOTAL FOR ORE				293.95
DEVELOPMENT ALLOWANCE	13.140	78.05	0.50	39.03
HAULAGE ALLOWANCE			.06	78.84
TOTAL ALLOWANCES				117.87
TOTAL GROSS SETTLEMENT				411.82
DEDUCTIONS AND/OR ADJUSTMENTS [−]				
NET SETTLEMENT				$411.82

DISTRIBUTION

%	PAYEE	AMOUNT	CHK. NO.
100	Midland Mining Co.	$411.82	485
			1/6

NOTE:
Buyer's assays govern if seller fails to submit his assays prior to acceptance of settlement payment.
All rates paid are based on U. S. Atomic Energy Commission published schedules.

APPROVED

Form AEC-300 A
(6-57)

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: [illegible]land Mining Company
2. MAILING ADDRESS: 20[illegible] [illegible] Building, Billings, [illegible]
3. NAME OF MINING PROPERTY: Sandra Claims
4. MINING DISTRICT: [illegible]utte
5. DATE: January 12, 1960
6. AEC LICENSE NO: [illegible]
7. MINING PROPERTY CERTIFICATION NO: D.C.P. [illegible]

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: [illegible] Exploration, Inc. (Mill or station)

LOCATED AT: [illegible], [illegible]

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
Jan. [illegible], 196[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	73.[illegible]	[illegible]	273.[illegible]

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

TOTAL, $ 273.[illegible]

[illegible]land Mining Company

Jan. 1[illegible], 196[illegible] President

FOR USE BY ATOMIC ENERGY COMMISSION ONLY

	ACCOUNTING CLASSIFICATION	AMOUNT

16-47737-3 GPO

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 18 1960

DATE	INITIALS	CODE
3-18	gad	VVO
3/23	[illegible]	800
	~~[illegible]~~	~~800~~

No. 157 Howard Street
Spokane 4, Washington
March 15, 1960

Mr. C. A. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

Enclosed is a copy of a Report of Review in lieu of a final audit on the referenced contract.

You will note that there is a balance of $199.99 due the Operator. However, payment of this balance will be withheld pending settlement of the royalty due on the second ore shipment mentioned in your final report. Your royalty payment should be accompanied by a reproducible copy of the settlement sheet furnished by the buyer.

Regarding any future shipments we call your attention to Article 8(b) of the contract which provides that any production from the land from the date of the contract until 6 months after an acceptable final report and final account is received is subject to royalty even though the production were sold after the 6-month period. We received an acceptable final report from you March 8, 1960. Article 8(d) provides for the liquidation of any production that has not been sold after a lapse of 6 months from the date it was extracted from the ground.

Sincerely yours,

A. E. Weissenborn
Executive Officer, OME
Field Team Region I

Enclosure

cc: Fiscal Section without encl.
Div. of Administrative Services
Office of the Secretary
Department of the Interior
Washington 25, D. C.

Contract Adm. & Audit Div., OME
OME(2)
USBM(2)
Director's Reading File

Fiscal Section: We are holding the original of the Report of Review until we receive settlement of royalty mentioned in this letter.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
March 15, 1960

OFFICIAL FILE COPY O. M. E. RECEIVED MAR 22 1960		
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3/22	RCW	225
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3-25	JB	130
3/28	Murphy	220

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Enclosed are three copies of a Field Team final report on the referenced project prepared by S. W. Zoldok, Mining Engineer, Bureau of Mines, and R. D. Sample, Geologist, Geological Survey.

Work completed under the project included 2,310 feet of diamond drilling, and 383 feet of drifting, crosscutting, winzing, and raising at a total cost of $22,559.80, of which the Government's share was $16,919.85 or 75 percent.

Zoldok and Sample conclude that the project did not result in a discovery of any significant amount of uranium ore and no certification is recommended.

We concur with this conclusion and recommendation.

By Field Team Region I

A. E. Weissenborn
A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Stephen W. Zoldok
for O. M. Bishop, Member
U. S. Bureau of Mines

Enclosures

Reviewed by
OME OPERATING COMMITTEE
3-25-60
(date)

FINAL FT. REPORT

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

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FROM: 225	3/24	RCW

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

INT.-DUP. SEC., WASH., D.C. M50943

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DEPARTMENT OF THE INTERIOR

OFFICE OF MINERALS EXPLORATION

FIELD TEAM, REGION I

FINAL REPORT

Contract Idm-E1097

by

S. W. Zoldok
Mining Engineer
U. S. Bureau of Mines

R. D. Sample
Geologist
U. S. Geological Survey

MIDLAND MINING COMPANY
207 Medden Building
Billings, Montana

Docket No.:	DMEA-4619
Commodity:	Uranium
Contract date:	June 3, 1957
Termination date:	September 1, 1959

MIDLAND MINING COMPANY
Sandra Group
Carbon County, Montana

Reviewed by
OME OPERATING COMMITTEE
3-25-60
(date)

Spokane, Washington

February 1960

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ILLUSTRATIONS

Plate 1.	Southern Portion of Big Pryor Mountain	In pocket
2.	Geologic Map of the Sandra Lode Claim	In pocket
3.	Radiometric Grid Map showing DD Holes on the Sandra Uranium Claim	In pocket
4.	Sketch map showing Plan and Cross Section Sandra Uranium Claim	In pocket

FINAL REPORT

MIDLAND MINING COMPANY
Sandra Group
Carbon County, Montana

Contract Idm-E1097

* * * *

INTRODUCTION

This report describes the results of an exploration project for uranium ore on the Sandra group of claims in Carbon County, Montana. The project was conducted jointly by the Defense Minerals Exploration Administration and Midland Mining Company, Operator under the contract.

Summary

The purpose of the project was to explore an area of known radioactivity anomalies by surface drilling and crosscutting.

Work completed under the terms of the contract consisted of 20 surface holes totaling 2,310 linear feet and 383 feet of crosscut, drift, raise and winze. The total cost of the exploration project, including attendant work items, was $22,559.80, with Government participation at 75 percent or $16,919.85.

The exploration indicated the presence of only a small tonnage of commercial ore. Not over 200 tons of material assaying over 0.20 percent U_3O_8 could be inferred as a result of the project. During the exploration the Operator mined 28.35 tons of ore assaying 0.18 percent U_3O_8. An additional small tonnage of like grade is stockpiled.

Recommendations

The project was not successful in disclosing a significant tonnage of commercial uranium ore. A certification of discovery is not recommended.

Government participation in further exploration is not warranted.

PROPERTY

The property subordinated under the contract consists of the following unpatented lode mining claims:

Claim	Book No.	Page No.
Sandra	8	195
Myrne	8	206
Wanda	8	210
Vi	8	207
Blonde Edna	8	198

The Operator controls the land under a "Lease and Agreement" with Pryor Mining Company, recorded in Book 15, page 322 of Lease records, Carbon County, Montana.

The claims are situated in unsurveyed section 33, T. 8 S., R. 27 E., M.P.M., Carbon County, Montana, approximately 13 miles northeasterly from Warren, Montana. Warren is on U. S. Highway No. 310, about 67 miles south of Billings, Montana.

GEOLOGY

Regional

A field study of the Pryor Mountain uplift of southern Montana was undertaken by D. L. Blackstone, Jr., and carried out during portions of the field seasons of 1932-35, inclusive. The results of this work were published in The Journal of Geology, Vol. 48, No. 6, pages 590-618, inclusive. Blackstone believes that this uplift forms a typical unit within a regionally extensive pattern of the Central Rocky Mountains which was deformed by tangential pressure from the southwest during the Laramide orogeny.

Structurally, the Pryor Mountains are divided into four major and three minor units, separated from each other by steep-dipping and overturned faults. Each of the major units have been tilted westward. The gentle dip slopes to the west are eroded into narrow box canyons, while the steeper eastern slopes of the blocks are abrupt scarps, though relatively less dissected. The term "trap-door" structure has been applied to the asymmetric type of uplifts which are significant and characteristic features of the various units or blocks. The Big Pryor Mountain represents the westernmost fault block of the series.

According to Blackstone the Pryor Mountains represents an essentially conformable, though discontinuous, sequence from the middle Cambrian to Upper Cretaceous. Apparently the Silurian and Devonian periods are not represented in the geologic section.

Local Geology

The Sandra group of claims straddles the crest of the Big Pryor Mountain fault-block (pl. 1). The Sandra claim, where all the exploration work was done, is bounded on the east by the steep, northwesterly-trending Crook Creek fault escarpment. This escarpment separates the Big Pryor block from the East Pryor block.

In the vicinity of the Sandra claim, the overlying sediments have been stripped down to the Madison Limestone formation which forms almost the entire surface of the southerly plunging ridge along which most of the uranium prospects and workings are located. Here and there are small remnants of the overlying Amsden or Younger formations resting on the gentle slopes of the Madison Limestone. This persistent Madison Limestone formation is blue to blue-gray in color and contains abundant fossils of Mississippian age. It is thin bedded to massive in places and contains many chert nodules and discontinuous cherty layers. The formation is known to vary in thickness from 600 to 1,000 feet in the general region. In the Big Pryor Mountain area it is considered to be over 600 feet in thickness, although the amount removed from the upper unit by terrestrial erosion before the overlying Amsden formation was deposited has not been determined. Until a few years ago the Madison Limestone was never considered as a favorable host rock for uranium mineralization, although it was known to be similar to the Tyuya Muyun deposits of Russia (from whence came the name "tyuyamunite" or calcium-uranium vanadate). In the Tyuya Muyun deposits the secondary minerals of uranium are reported to be found above the water table, and pitchblende below the water table, which is about 570 feet below the land surface. It is conceivable that a similar condition may exist at some place within the widespread Madison Limestone but, to date, there has been insufficient exploration to prove such a concept.

The upper unit of the Madison Limestone consists of crystalline, gray to yellowish-brown limestone having a thickness of 100-150 feet. It contains large chert nodules, cherty layers, and small seams of calcite. Many solution caverns are partially open and others are entirely filled and recemented with secondary silica and soft, reddish clay. These caverns were probably developed when the limestone was exposed to weathering and erosion, and a karst topography was formed over the surface. It is not improbable that some caverns were developed in the lower units of the Madison Limestone at the same time and are connected irregularly with the caverns of the upper unit. Some of the cave fillings are stratified and indicate water deposition; in others, the irregular blocks and chert nodules indicate roof collapse and recementation by secondary silica and clay. On the surface some of these siliceous breccia zones stand out in bold relief because of their resistance to erosion (pl. 2).

Most of the prospects and workings on the Big Pryor Mountain are on or near the crest line of the southerly-plunging anticline and within half a mile of the north-trending major fault bounding the east side of the mountain. As the crest of the anticline would normally be the zone of greatest strain and fracturing during deformation, it would be the most favorable zone through which percolating ground waters could circulate and bring in additional minerals for recementing the loose fragments. The secondary uranium and vanadium minerals were probably brought in by the ground waters and concentrated in the loosely filled caverns and along fractures. By the same line of reasoning, any concentration of uranium minerals along the anticline might have been flushed away by the action of ground water, the same as some oil deposits have been flushed from domes. The few pods and lenses of uranium now found along the crest may be only the remnants of a once larger deposit.

THE PROJECT

This project was based primarily upon the geologic concept that any outstanding radioactivity anomaly which lies within a known uranium producing district warrants further investigation.

In 1956 Olin Hart, in charge of the AEC exploration program in Billings, Montana, made a radiometric survey of the Sandra claim which showed several interesting anomalies (pl. 3). Mr. Hart believed these anomalies were worthy of further exploration by surface drilling and underground crosscutting.

Other factors favoring an exploration project were:

(1) The property lies about one-half mile south and along the same formational contact as the Old Glory mine which produced 346 tons of ore averaging 0.82 percent U_3O_8 and 0.63 percent V_2O_5. The production was from cave-fills which were not detectable from the surface.

(2) In December 1956 the Sandra claim produced 10 tons of silicified limestone containing tyuyamunite blebs and streaks from an adit opening along the cliff face (pl. 2). This shipment assayed 0.19 percent U_3O_8 and 0.34 percent V_2O_5.

(3) The property also lies at or near the crest line of Big Pryor Mountain and within half a mile of the north-south trending major fault bounding the east side of the mountain. Most of the uranium prospects in the near vicinity are on this crest line and appear to parallel roughly the major faulting and folding.

The application, submitted January 21, 1957, proposed to explore a potential ore-bearing zone in the upper 200 feet of the Madison limestone by means of rotary drilling and by drifting. The proposed work consisted of 12,000 feet of rotary drill holes, 500 feet of coring holes, 900 hours of bulldozing and 1,000 feet of drifting and crosscutting. With attendant work items, the exploration program was estimated to cost $124,590.

The proposed exploration program was considered too extensive for the probable size of the target and a more modest one was recommended. The contract, which incorporated the Field Team's recommendations, authorized a two-stage exploration program consisting of 80 hours of bulldozing and 2,500 feet of rotary drilling under Stage I, and 1,000 feet of rotary drilling and 400 feet of crosscut or an equivalent 150 feet of shafts under Stage II. The estimated cost, including attendant work items, was $27,008.00 with the Government's participation at 75 percent or $20,256.00.

The contract became effective on June 3, 1957. Project work was started by June 25, 1957, and was essentially completed by September 1, 1959, when the contract expired. Exploration completed under the DMEA contract consisted of 2,414 feet of rotary drilling, 383 feet of crosscutting, drifting, raising and winzing and 80 hours of bulldozing.

The drilling was done with a "mole drill" having a bit diameter of 4-3/4 inches.

Under Stage I of the contract the Operator drilled 19 holes; 14 of which were approximately 100 feet in depth and 5 about 200 feet in depth for a total of 2,310 feet. One hole was abandoned as incomplete under Stage I, and a single hole was drilled to a depth of 104 feet under Stage II.

The holes were drilled along the crest line of Big Pryor Mountain, a short distance west of the north-south trending major fault. A distance of about 600 feet along the crest was explored by the drilling. The south half of the area was explored by a single line of 6 holes, only one of which showed the existence of minor radioactivity. In the northern half of the area the holes were spread out laterally and 7 of the 15 holes drilled showed some radioactivity (pl.2).

The holes drilled in the northern half of the area indicated a zone of anomalous radioactivity between about 20 and 50 feet below the surface and a second, though weaker, zone at about 90 feet below the surface. Only Hole 13 penetrated significant uranium mineralization. Two samples taken in the interval between 28 and 32 feet assayed 0.13 and 0.36 percent U_3O_8 and 0.59 and 1.22 percent V_2O_5, respectively.

To further explore the good uranium mineralization in Hole 13 and possibly the radioactivity anomalies in the neighboring holes, Stage II crosscutting was authorized. Under this stage 315 feet of crosscutting and drifting and 68 feet of raising and winzing was accomplished. The radioactivity anomalies in Holes 13, 9A, 11, 8 and 7A were further explored by this work (pl. 4).

The adit was started about 35 feet south of Hole 15 and was driven about due north. Hole 13 was intercepted at 165 feet of which only 120 feet was authorized under DMEA by an agreement with the Operator.

In the vicinity of Hole 13 the uranium mineralization occurs in cave debris as stringers in silt or clay and staining on limestone boulders. The debris-filled solution channel appears to strike north-northwest and dip steeply to the east. Of four samples taken in this area, two assayed less than 0.10 percent U_3O_8 and two assayed 1.25 percent and 1.01 percent U_3O_8 across 6 inches and 12 inches, respectively.

The Operator reported good tyuyamunite mineralization in the short raise on Hole 8 about four feet below the anomaly encountered in drilling the hole. This could not be confirmed by the field examiners as it was encountered after the last field inspection.

Only weak uranium mineralization was encountered in the raise on Hole 7A. The raise produced about 15 tons of ore that assays about 0.10 percent U_3O_8 according to the Operator.

From Hole 13 two short crosscuts were driven to Holes 9A and 11. Breccia material of the same character as that near Hole 13 was found. The uranium mineralization encountered here occurred in greater concentration and larger lenses than that near Hole 13. The higher grade material in an irregularly shaped lense about 5 feet long assayed 1.67 percent U_3O_8.

The contract was amended 7 times. The amendments were purely administrative in character. The original intent of the exploration was not changed nor were unit costs and total cost increased. The royalty repayment period was increased from 10 years to 12 years from the date of the contract or until June 3, 1969.

Ore Reserves

On the basis of present exposures possibly not over 100 to 200 tons of material assaying little better than 0.20 percent U_3O_8 can be inferred.

Summary of Factual Data

Work completed under the contract was on a unit cost basis, as follows:

Stage I

Item	Authorized	Completed	Unit Cost	Total Cost
Bulldozing	80 hrs.	80 hrs.	$15/hr.	$ 1,200.00
Rotary drilling				
0' - 100'	2000 ft.	1900 ft.	3.40/ft.	6,460.00
100' - 200'	500 ft.	410 ft.	4.85/ft.	1,988.50
Standby time	33 hrs.	33 hrs.	10.40/hr.	343.20
Chemical analyses	25 samp.	25	5.00/ea.	125.00
Total cost Stage I				$10,116.70

Stage II

Drilling 100-ft. holes	1000 ft.	104 ft.	$3.40/ft.	353.60
Crosscutting) Winzing (Drifting) Raising (	400 ft.	383 ft.	31.50/ft.	12,064.50
Chemical analyses	23	5	5.00/ea.	25.00
Total cost Stage II				$12,443.10
Total cost of project				22,559.80 1/

1/ Subject to audit. In addition, $100.00 was withheld in lieu of a final engineering and geologic report.

Total amount of contract	$27,008.00
Government participation at 75%	20,256.00
Total amount expended	22,559.80
Government's participation	16,919.85
Total amount unexpended	4,448.20
Government's share unexpended	3,336.15
Net value of production (To Feb. 1960)	$547.63
Royalty payments received	27.38

The Government has no equity in equipment used on the project.

Discussion of Conclusions

The Operator experienced considerable difficulty in the surface drilling when underground caves or fissures were encountered. The exploration work lagged due to lack of adequate financing; however, the work was done in a competent manner.

The exploration work indicated that uranium mineralization is only sporadically distributed in the cave debris as small lenses, stringers in silt and clay and as coating on boulders.

Enclosures
Distribution:
OME (3)
USBM (3)
USGS (SRO)
Docket
Sample

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/11	Murphy	~~120~~ 580
3/11	Dowell	~~500~~
		~~500~~
3/11	Talbert	800
3/11	[illegible]	130
"	Johnson	110
3/11	Gad	~~[illegible]~~
		225

MAR 11 1960

Memorandum

To: Executive Officer, OME Field Team, Region I

From: Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

This is with reference to the Field Team's letters, dated January 29 and February 17, 1960, to the subject operator.

In the letter of January 29 it is stated that the Government will withhold payment, otherwise due for work performed under the contract, in the amount of $100.00, pursuant to the provisions of Article 7(e) of the contract, permitting such withholding. We believe that in the light of our letter of January 22, 1960, to you, the statement could be interpreted ambiguously. If the intent were that the Region was going to retain $100.00 of the $200.00 withheld, then the writing of the Operator's Final Report would have been determined to cost $133.33, which sum would have appeared as a disallowance from the otherwise acceptable costs of the project. If it were meant that the cost of writing the Operator's Final Report was $100.00 and that such an amount would have been deducted as a disallowance from the otherwise acceptable costs of the project, the Region would have retained $75.00 from the $200.00 being withheld.

The letter of February 17 states:

> "We would appreciate hearing what disposition has been made of this stockpiled ore as royalty on any production would be due for a period of six months after an acceptable final report and final account has been rendered..."

We believe that it would have been clearer to point out to Mr. Hauptman that in keeping with Article 8(b), any production from the land from the date of the contract until six months after an acceptable final

43683

report and final account had been received would be subject to royalty payments to the Government even though the production were sold after the six months' period. Article 8(d) provides for the liquidation of any production that has not been sold after a lapse of six months from the date it was extracted from the ground.

/s/ George C. Selfridge (hb)

APPROVED:

P. F. Yopes (hb)

Member, Bureau of Mines

Harold Kirkemo (hb)

Member, Geological Survey

FMMurphy/GCSelfridge/hb (3/10/60)

Copy to: Director's Reading File
Operating Committee
Harold Kirkemo, USGS
E. Dallas Talbert
G. C. Selfridge
Code 500
Chron

MME Form 7
(10-58)

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3/9	Selfridge	120
1/9	[illegible]	500
3/10	gad	220
1	Murphy	500

MAR 9 1960

Memorandum

To: Executive Officer, OME Field Team, Region I

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

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

In accordance with your March 1 memorandum to this Division, as amended by your March 8 teletype to the Operating Committee, a Report of Review on the subject project has been prepared. The original and two copies are attached.

If you concur with the facts as stated in the Report of Review, distribution may be made as authorized by section 4 of OME Circular 2 dated February 17, 1960. It is suggested, however, that submission to the Department's Fiscal Section of the original of the report, together with your request for payment of the $199.99 balance due the Operator, be withheld pending settlement for royalty on the stockpiled ore, which is the subject of your February 17 letter to the Operator.

If the Operator fails to pay royalty either upon disposition of the ore or after exercise of the Government's option under Article 8(d) of the contract, the balance due the Operator for the Government's contribution to costs will be available for offset. This may be accomplished by requesting the issuance of two checks in payment of the $199.99 due the Operator, i.e., one payable to OME in the amount of the royalty due and one payable to the Operator for any remaining balance.

As requested by your March 2 memorandum the certifying officer's files on this contract are being delivered to the Department's Fiscal Section.

Attachments

EDTalbert/ama
March 9, 1960

Copy to: Docket
Director's Reading File
CA & A Division
Mr. Bailey, Rm. 2520, Interior
Mr. Rothrock, Rm. 7354, Interior
(with Certifying Officer's files)
Mrs. Dorothy F. Long
Mr. Talbert

43683

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BMD - COMMUNICATIONS

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SPOKANE WASH 3-8-60 1148U

MR. GEORGE C. SELFRIDGE, CHAIRMAN OPERATING COMMITTEE

OME DEPT. OF INTERIOR WASHN 25 D. C.

RE OUR LET MARCH 4, 1960 DOCKET NO. DMEA 4619 MIDLAND MINING CO, SANDRA GROUP, CARBON COUNTY MONTANA. CONTRACT #IDM-E-1097, ACCEPTABLE OPERATORS FINAL REPORT RECEIVED MARCH 8, 1960.

A. E. WEISSENBORN, EXECUTIVE OFFICER

OME FIELD TEAM REGION 1

4 1960 #DMEA4619 IDM-E1097 8 1960

1150U

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
March 8, 1960

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O. M. E.
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DATE	INITIAL	CODE
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3/14	[illegible]	800
3/15	Murphy	500

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Enclosed are two copies of an acceptable Operator's final report on the subject contract.

The Field Team final report is being typed and should be ready for mailingin mid-March. It will not recommend a Certification of Discovery or Development.

By Field Team Region I

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

for O. M. Bishop, Member
U. S. Bureau of Mines

Enclosures

OPR'S FINAL REPORT

MIDLAND MINING COMPANY
207 Hedden Building
Billings, Montana

February 23, 1960

Office of Minerals Exploration
U. S. Dep't. of Interior
So. 157 Howard Street
Spokane 4, Washington

Re: Docket # DMEA-4619
Contract # Idm-E1097
Sandra Claim group
Final Report

Gentlemen,

Under the terms of the above named contract and amendments, which contract expired September 1, 1959, the following is a final report of the activities of Midland Mining Company relating to said contract.

Operations under said contract were begun on the Sandra claim in the Pryor mountains in southern Montana on June 19, 1957. From this date to July 8, 1957, the work consisted of a survey of the drill sites for the test holes called for under Stage I of the contract. The preparation of the drill sites with a bull dozer was also begun during this period. The first rig was moved in on July 8 but after a few days it became evident that this rig was incapable of doing the work. Another rig better equipped for the job was moved in on July 23. This last rig worked on the project until September 17, 1957, on which date the rig was released.

Under the DMEA contract, Midland was allowed 3500 feet of drill hole with the cost estimated at $2.90 per foot for holes up to 100feet in depth and $4.35 for hole drilled from 100 to 200 feet. Soon after the drilling began, it became evident that the cost per foot was going to be much greater than anticipated. By September 17, 1957, when the drill rig was released, 2454 feet of hole had been drilled at a cost of more than $6.50 per foot. Midland therefore completed an evaluation of the drilling then done and requested permission of the DMEA field team to begin the second stage of the project, namely the underground exploration. The field team concurred with our evaluation of the drilling results and on November 19, 1957 authorized Midland to proceed with the underground portion of the contract.

Portaling on the Sandra claim began December 1, 1957 and continued without interruption throughout the winter. By April 21, 1958, 169 feet of drift had been driven, hole SA-13 intersected, a shallow shaft sunk from the drift near SA-13, and short crosscuts driven from the bottom of the shaft or winze. Work was stopped following a heavy snowstorm on April 21 and no further work done until August 24, 1958. Drifting was again started on this last date and by October 19, the drift intersected hole SA-8 for a total length of 261 feet. No work was done at the project from October 20, 1958 to April 5, 1959 at which time rehabilitation work was started to rebuild track, replace timber, etc. Such rehab work continued until May 25, 1959. On this last date, drifting was

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U. S. G. S.
SPOKANE, WASH.

continued. During the period May 25 to September 1, 1959, 137 feet of drifting, inclining and raising was completed. Included in this work were the intersecting of drill holes SA-7, SA-9A and SA-11 and short raises following drill holes SA-7 and SA-8 upward. Thus, the total underground footage driven during the time of the contract was slightly more than 427 feet. Of this footage, however, the government participated in only 383 feet.

Except for the last few feet in the raise following drill hole SA-7A upwards, all of the ground encountered in the underground workings was silicified, brecciated limestone and reworked Amsden sediments. Such material is typical of cave-fill debris in the karst topography of the upper Madison formation. The last few feet in the raise mentioned above was in unaltered white limestone.

Scattered spotty tyuyamunite mineralization was encountered all during the underground work but deposits of any value were found only where strong water courses were present in the breccia. It is therefore evident that the deposits are directly attributable to ground water movement. What ore was found during the course of this exploration was from wet silt and clay filled crevices or fractures in the cave-fill debris, in which material the red, brown and purple clays were evidently of Amsden origin.. The mineralization undoubtedly was not indiginous to the Amsden but was merely deposited in such host material during the stripping of Tertiary sediments which covered the area at a much later time. No doubt present ground water movement is continuing to redeposit the uranium mineral.

The only pockets of commercial grade mineralization found during this project were in the vicinity of drill hole SA-13. The red hatchures on the accompanying map show the locations of such mineralized fractures. Two small ore shipments, sent to the mill in Riverton, Wyoming, were removed from this area. The first, sent to the mill in April, 1958, was 28.35 dry tons containing .18% U_3O_8. The second shipment in ~~January~~ December 1959 was 12.588 dry tons containing .31% U_3O_8. Present ore reserves in sight in the Sandra mine are probably not more than 15 tons. The problem of ore reserves in this district has been a most difficult one due to the almost unpredistable habit of the deposits. Even the mines in the area that have been producing for a number of years in the district can make no reliable reserve estimates.

To date, Midland Mining Company has spent in excess of $52,000 on this project. This sum includes all related costs incurred in both the drilling and underground stages of exploration. The cost was considerably more than was anticipated and can be directly attributed to the difficult and expensive drilling and the neccessity for extensive timbering in the underground work, which timbering was not provided for in the DMEA contract.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Hauptman

C. M. Hauptman
President

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
March 4, 1960

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O. M. E.
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DATE	INITIALS	CODE
3-7	gad	VVO
3-7	[illegible]	800
~~3/8~~	~~Murphy~~	~~500~~

Air Mail

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

In accordance with your memorandum of January 22, 1960, we advised the referenced Operator on January 29, 1960, that if we did not receive his final report within 30 days, we would withhold $100 in accordance with the provisions of Article 7(c) of the contract.

On March 1, 1960, we requested the Contract Administration and Audit Division, OME, to make a Report of Review advising them that $100 should be withheld. After mailing this memorandum, we received from the Operator a letter dated February 28, 1960, in which he stated that as soon as the maps were reproduced he would mail us the report, saying that this would be "in the next 2 days."

We suggest that, if possible, the Report of Review be postponed until March 14, 1960. We will advise you by teletype on that date whether or not the report has been received.

A E Weissenborn

A. E. Weissenborn

One (3)

MIDLAND MINING COMPANY

207 Rubin Bldg. Telephone 3-[illegible]
HELENA, MONTANA

February 25, 1960

Office of Minerals Exploration
U.S. Dept. of Interior
So. 157 Howard Street
Spokane 4, Washington

Re: Rocket & Mitchell
Sandra Claim Group

Gentlemen,

The final report you have requested will be in your hands in the next two days. The maps are now being reproduced. As quickly as this is done, I will send the report to you.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Kempton
President

Airmail

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 7 [illegible]

DATE	INITIALS
3-7	gad
3/7	[illegible]
3/8	[illegible]

RECEIVED
MAR 1 [illegible]
U.S. D. I.

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 7 1960

DATE	INI...	
3-7	gad	VVO
3/7		800
	~~Murphy~~	500

So. 157 Howard Street
Spokane 4, Washington

March 2, 1960

CERTIFIED MAIL

Memorandum

To: Contract Administration and Audit Division, OME

From: Executive Officer, OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Enclosed herewith is a memorandum requesting a Report of Review, in lieu of final audit, of the subject contract. In addition, we are transmitting the following material:

1. Contract and Correspondence File

2. Voucher File

All accounting copies are being forwarded as, no doubt, you will send your review to Chief, Fiscal Section, Office of the Secretary, for final payment and, at the same time, can deliver the accounting files to them.

A. E. Weissenborn

cc: OME (2)
USGS (2)
Docket

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 7 1960

DATE	INITIALS	CODE
3-7	gad	VVO
3/7	[illegible]	800
		500

1201 N. Division St.
Spokane 2, Washington

March 1, 1960

Memorandum

To: Contract Administration & Audit Division, OME

From: Executive Officer, OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-K1097

The subject contract expired on September 1, 1959.

The number of units of work completed by the Operator and accepted by the Field Team as conforming to contract specifications were:

Stage I	- Bulldozing	80	hours
	Rotary drilling		
	0' to 100'	1,900	feet
	100' to 200'	410	feet
	Standby time	33	hours
	Chemical analyses	25	"
Stage II	- Rotary drilling		
	0' to 100'	104	feet
	Crosscutting, drifting, winzing and raising	383	"
	Chemical analyses	5	

The Operator has not submitted a final engineering and geological report and $100 should be withheld from monies otherwise due for work performed, in accordance with Article 7(e) of the contract.

A Report of Review, in lieu of a final audit, is in order and requested.

A. E. Weissenborn

Distribution:
OME (2)
USGS (2)
USBM (AD)
Docket

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 23 1960

DATE	INITIALS	CODE
2-23	gad	220
2/23	[illegible]	800
2/24	Murphy	600

1201 N. Division St.
Spokane 2, Washington

February 17, 1960

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. 4619 (uranium)
Sandra Group
Carbon County, Montana
Contract No. E-1097

Dear Mr. Hauptman:

Our periodic inspections show that some ore has been mined and stockpiled at the Sandra claim since Lot. No. 33-S, consisting of 28.35 dry tons, was shipped in April 1958.

the Government has royalty [illegible]

We would appreciate hearing what disposition has been made of this stockpiled ore as royalty on any production ~~would be due~~ for a period of six months after an acceptable final report and final account has been rendered, even though no formal certification has been issued.

By Field Team, Region I

D. R. MacLaren, Alternate Acting
Executive Officer
U. S. Geological Survey

S. W. Zoldok, Acting Member
U. S. Bureau of Mines

cc: OME (2)
USGS (2)
USBM (AD)

OFFICIAL FILE COPY O. M. E. RECEIVED FEB 1 1960		
DATE	INITIALS	CODE
2-1	gad	200
2/1	[illegible]	800
2/2	[illegible]	500

So. 157 Howard Street
Spokane 4, Washington
January 29, 1960

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

In our letters of October 28, 1959, November 3, 1959, December 1, 1959, and January 14, 1960, we called your attention to the requirement of submitting a final engineering and geologic report on the completed DMEA project in accordance with Article 7(c) of the referenced contract.

Unless an acceptable final engineering and geologic report is received within 30 days from the date of this letter, the Government will withhold payment, otherwise due for work performed under the contract, in the amount of $100, pursuant to the provisions of Article 7(e), of the contract, permitting such withholding.

By Field Team Region I

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

O. M. Bishop, Member
U. S. Bureau of Mines

cc: OME (3)
USBM (2)
USBM (AD)
Sample
Director's Reading File

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/22	Talbert	800
"	Murphy	500
	[illegible]	500
1/22	GCS	130
"	Johnson	110
1-22	gad	220
1-22		500

JAN 22 1960

Memorandum

To: Executive Officer, OME Field Team, Region I

From: Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

This is with reference to the Field Team's three letters during the year 1959 and the last one on January 14, 1960, to the subject Operator requesting its final report.

If the report has not been received to date, the Field Team should advise the Operator that, if the report is not received within 30 days from the date of its letter, a specified amount will be deducted as a disallowance from the otherwise acceptable costs of the project. The amount should be determined by the Field Team on the basis of the estimated cost of the Operator's final report with due consideration of the amount of work performed and the data contained in the Operator's monthly narratives.

When this matter has been concluded, the Field Team should request an audit and, thereafter, submit its final report and recommendations regarding certification as soon as possible.

/s/ George C. Selfridge (SHB)

APPROVED:

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

Harold Kirkemo (SHB)
Member, Geological Survey

FMMurphy/gla (1-22-60)
Rewritten by EDallas Talbert/hb (1/22/60)
Copy to: Director's Reading File
Operating Committee
Harold Kirkemo, USGS
E. Dallas Talbert
Code 500
Chron

8623

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 18 1960

DATE	INITIALS	CODE
1-18	gad	220
1/18	[illegible]	800
1/20	[illegible]	500

So. 157 Howard Street
Spokane 4, Washington

January 14, 1960

Mr. C. M. Hauptman, President
Midland Mining Company
207 Redden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

The above referenced contract terminated September 1, 1959. In our letters of October 28 and November 3, 1959, we advised you that we are withholding the sum of $200.00 pending receipt of a final report as required in Article 7(c) of the contract. We wrote you again December 1, 1959, but as yet we have not received a reply.

We would appreciate your early attention to this matter so that we can have an audit made and close our books on this contract.

Sincerely yours,

A. E. Weissenborn
Executive Officer, OME
Field Team, Region I

cc: OME (2)
USBM (2)
USBM (AD)
Sample
Director's Reading File

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 4 1959

DATE	INITIALS	CODE
12-4	gad	VVO
12/4	[illegible]	800
	~~Murphy~~	~~500~~

No. 137 Broad Street
Spokane 4, Washington
December 1, 1959

Mr. G. M. Houghton, President
Highland Mining Company
307 Hobson Building
Billings, Montana

Re: Docket No. [illegible] (Montana)
Rankin Group
Carbon County, Montana
Contract No. [illegible]

Dear Mr. Houghton:

In our letter of October 28, 1959, we advised you that before we can make a final audit and release the funds being withheld on your July-August 1959 voucher, it will be necessary for you to submit an acceptable final report as required under Article 7(c) of the subcontract.

We would appreciate receiving your final report as soon as possible so that we can proceed with the final audit and close our books on this contract.

Sincerely yours,

A. H. Weisenborn
Executive Officer, OME
Field Team Region I

cc: OME(2)
VEEM(2)
VEEM(AD)
Sample
Director's Reading File

OFFICIAL FILE COPY O. M. E. RECEIVED NOV 6 1959		
DATE	INITIALS	CODE
11/9	RCW	225
11/9	[illegible]	800
	~~Murphy~~	~~500~~

1201 N. Division St.
Spokane 2, Washington

November 3, 1959

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097
Operating report for
July and August 1959

Dear Mr. Hauptman:

The subject monthly operating report has been processed and forwarded to the Disbursing Officer for payment.

We are withholding the sum of $200.00, pending receipt of a final report and a final audit by a representative of the Contract Administration and Audit Division of the Office of Minerals Exploration. This is the customary procedure and is applicable to all contracts.

By Field Team, Region I

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

R. D. Sample, Acting Member
U. S. Geological Survey

cc: OME (2)
USGS (2)
USBM (AD)

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
November 2, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 5 1959

DATE	INITIALS	CODE
11-5	gad	VVO
11/5	[illegible]	800
11/6	Murphy	502

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

The work completed under the referenced contract has not resulted in the discovery of a significant uranium ore body.

From the vicinity of hole SA-13 about 30 tons of material assaying 0.18 percent U_3O_8 was shipped to Riverton, Wyoming. From the vicinity of hole SA-7A about 15 tons of material estimated to contain 0.1 percent U_3O_8 has been stockpiled; and from the vicinity of hole SA-11, 10 to 15 tons of material estimated to contain better than 0.2 percent U_3O_8 has also been stockpiled. The estimated grades of these two stockpiles is based on radiometric readings.

The project might have discovered as much as 100 tons of material containing a little better than 0.2 percent U_3O_8. Additional exploration along the breccia zone from which the last two "ore" piles came might result in additional ore of similar grade in relatively small pods, and could conceivably result in the discovery of pods of material of higher grade. Other than this general inference, it is impossible to say what might be found by further work.

We are uncertain whether or not a Certification of Discovery or Development is warranted by the results of the project work.

See settlement sheet, received May 5, 1958, in Folder 1.
30 tons-ore. @ 0.18% U_3O_8

for Stephen L. Zolotok
Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren RDS.
Donald R. MacLaren, Acting Member
U. S. Geological Survey

cc: USBM(2)
USBM(AD)
Sample

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 2 1959

DATE	INITIALS	CODE
11-2	gad	VVO
11/2	[illegible]	800
"	Murphy	500

1201 N. Division St.
Spokane 2, Washington

October 28, 1959

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-X1097

Dear Mr. Hauptman:

The Washington Office of Office of Minerals Exploration has turned down your request to transfer unused drilling funds to additional drifting.

Since all approved work has essentially been completed, we can proceed with winding up the contract.

Some of the funds due you on your July-August 1959 voucher will be withheld pending receipt of an acceptable final report and a final audit.

Before we can make a final audit and release the funds being withheld it will be necessary for you to submit an acceptable final report as required under Article 7 (c) of the contract.

We would appreciate receiving your final report as soon as possible so that we can proceed with the final audit.

By Field Team, Region I

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

R. D. Sample, Acting Member
U. S. Geological Survey

cc: OME (2)
USGS (2)
USBM (AD)
Docket
Df

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/23	Murphy	500
"	[illegible]	500
10/23	Talbot	800
10/23	[illegible]	130
"	Johnson	110
10/26	gad	220
		500

OCT 23 1959

Memorandum

To: Executive Officer, OME Field Team, Region I

From: Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4610 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. 14m-E1097

Your memorandum dated October 12, 1959, with the attached letters and interim report relating to the subject project have been reviewed.

In view of the past results, it is unlikely that the additional drifting suggested would result in the discovery of significant deposits of uranium ore; hence, the Operator's request that the contract be amended to allow such drifting is denied.

For all practical purposes, all approved work under the contract has been completed. Therefore, will you kindly proceed with the winding-up actions mentioned in our letter of October 6, 1959.

/s/ George C. Selfridge (245)

APPROVED:

Frank D. Lamb (245)
Member, Bureau of Mines

Harold Kirkemo (245)
Member, Geological Survey

FMMurphy/glaw 10/23/59
cc: Director's Read.File
Operating Committee
Harold Kirkemo, USGS
Docket
Chron.

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
October 12, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 19 1959

DATE	INITIALS	CODE
10-19	gad	770
"	[illegible]	110
OCT 15 1959		
(Dispatched)		
10/20	[illegible]	800
10/20	Murphy	500

Air Mail

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of claims
Carbon County, Montana
Contract No. Idm-E1097

Enclosed are three copies each of a letter dated September 28, 1959, from C. M. Hauptman, president of Midland Mining Company, and our reply. Also enclosed are the original and three copies of an Interim Inspection Report by R. D. Sample, Geologist, Geological Survey.

The Operator completed all but 17 feet of the 400 feet of underground work authorized in Stage II of the contract by September 1, 1959. The last phases of this work included crosscutting northeasterly to DDH SA-11 and southeasterly to DDH SA-9A where small lenses and pods of tyuyamunite were found in along the contact between limestone and brecciated material and in a fractured zone. The brecciated material appears to represent detritus and other products of erosion that have been deposited in channels, scours, and potholes developed on the old surface of the Madison limestone before the Amsden formation was deposited. The source of the uranium is not known but apparently in the Pryor Mountain region it has been deposited in the breccia filled channels or "caves" probably at or near the intersections of breccia and water courses. If this concept is correct, drifting along the zones of brecciated material might well uncover larger lenses of fairly high-grade tyuyamunite deposits. One good-sized lens of 1.0 percent or better U_3O_8 or several smaller lenses of like grade would more than repay the Government's investment. It is extremely doubtful that the Operator will continue to explore without Government assistance.

The Operator requests that the contract be amended to extend the date of completion and to convert the unused diamond drilling in Stages I and II to drifting. Last year a snow storm about the middle of October forced a close down until April. As there

has already been some snowfall in the area, it is probable that work will have to be discontinued for some part of the winter although at this time we cannot say when.

The contract was automatically terminated September 1, 1959, by item 3(a)(ii) of Amendment No. 6. If this does not preclude the possibility of further extension, we recommend that the contract be extended to July 1, 1960, and that Amendment No. 2 be amended to delete from Stages I and II the items under rotary drilling and substitute therefor:

in Stage I:

Holes from 0-100 feet in depth,	1900 ft. at $3.40/ft.	$6,460.00
Holes from 100-200 feet in depth,	410 ft. at $4.85/ft.	1,988.50

in Stage II

Holes from 0-100 feet in depth,	104 ft. at $3.40/ft.	353.60

Add Stage III

Providing for 120 feet of crosscutting, drifting, raising, and/or winzing	at $31.50/ft.	3,780.00

The new total costs will be:

Stage I	$10,116.70
Stage II	13,068.60
Stage III	3,780.00
Total for contract	$26,965.30

O. E. Weissenborn
A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Stephen Zolotoff
for Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures
cc: USBM(2)
USBM(AD)
Sample

P.S. We have just received your letter of October 6, 1959, regarding this contract. We will postpone initiating action in winding up the contract until you have considered the above and advise us further.

OMG 13)

So. 157 Howard Street
Spokane 4, Washington
October 12, 1959

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hoffman Building
Billings, Montana

Re: Docket No. DMRA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. 2Km-X1097

Dear Mr. Hauptman:

We have delayed replying to your letter of September 28, 1959, until Mr. R. D. Sample returned to the office after his recent inspection and received the assays of his samples.

We will forward your letter to Washington, D. C., for their consideration and will advise you as soon as we have any word. Any work done after September 1 will be for your account unless the termination date set in Amendment No. 6 should be extended.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: [illegible](3)
[illegible](2)
[illegible](AD)
Sample

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 19 1959

DATE	INITIALS	CODE

MIDLAND MINING COMPANY

207 Holden Bldg. Telephone 2-7220
BILLINGS, MONTANA

September 23, 1959

Mr. A. E. Weissenborn, Exec. Officer
Office of Minerals Exploration
U.S. Dept. of Interior
South 157 Howard Street
Spokane 4, Washington

Re: ~~Bronco & DeLaHunty~~
Sandra claim group
Contract # Idaho-E1097

Dear Mr. Weissenborn,

Under the present status of the subject contract as amended, Midland Mining Company and the Government have little mutual obligations except the "winding-up" called for in the contract since the the termination date of September 1 has passed. The purpose of this letter, however, is to propose a continuation of the contract for further assessment and further exploration under government assistance by converting those monies now allocated to drilling to exploration drifting.

Since before June 1, Midland Mining has been operating at the Sandra mine continuously and have driven all but 17 feet of the drifting called for in the contract. We will have more than this last footage driven before another examination is made by the field team as we are continuing operations to date.

Our previous requests for conversion of the funds allocated to drilling, to drifting have been refused for the reason that we have discovered no mineable ore warranting further exploration. Such is no longer the case as we have found mineable ore in the vicinity of drill holes SA-9 and SA-11 and have stockpiles approximately thirty tons preparatory to making a shipment to the mill. More ore will be mined in the next few days.

We have three good targets for further exploration based on the past summers work;

1. Good tyuyamunite mineralization was found in hole SA-8, four feet below the anomaly detected in the drilling of same. At this point, the highest reached in the raise to the anomaly at the time Mr. Sample made his examination, the lithology changed from unaltered limestone to silicified lime breccia which has been characteristic of the ore zones in this area.

2. Mineable ore is present in the area of drill holes SA-9 and SA-11 in a definite brecciated lead running nearly east-west. Further exploration along this lead is definitely warranted and work will continue in this area on a production basis. The evidence also indicates that this lead of brecciated material is the same exposed on the scarp south of holes 9 and 11 and west of the old portal east of the present portal.

[illegible]

Very truly yours,

[illegible]

President

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
October 9, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 19 1959

DATE	INITIALS	CODE
10-19	gad	220
		110
		800
		500

Memorandum

To: OME Field Team, Region I

From: R. D. Sample, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4619 (Uranium), Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The above property was visited and inspected on September 23, 1959. The previous inspection was made on July 23, 1959, by S. W. Zoldok, Bureau of Mines. John Bowsher, consulting engineer for the Midland Mining Company, was present at the time of inspection. Two practical miners were engaged in crosscutting and raising from the main adit level. A tape measurement of advances since Zoldok's visit was made as follows:

Raise on DDH 7A from incline of main adit	11 feet
Level crosscut east from main adit	12 "
Level crosscut S. 40° E. to DDH SA-9A	25
Level crosscut N. 10° E. to DDH SA-11	31
Raise from main adit on DDH SA-~~11~~ 8	15
Total	94

Weak mineralization of uranium was found in completing the raise on DDH 7A and the ore (about 15 tons) was stockpiled at the mine. According to the Operator, this ore assays a little better than 0.1 percent U_3O_8 which is not shipping ore under present economical conditions.

In crosscutting to DDH SA-9A a distinct contact between the limestone and brecciated and altered material was encountered. This contact is mineralized by blebs and spots of uranium ore with most of the mineralization in the altered, brecciated portion. The richer spots had been mined out and were stored in the ore bin. However, a sample taken in this contact assayed only 0.057 percent U_3O_8, indicating that all of the better grade material in this opening had been mined.

In crosscutting northward to DDH SA-11, a mineralized fracture was followed most of the way with pods and lenses of fairly rich tyuyamunite, but at the intersection of the hole no mineralization was noted. An irregular-shaped lens about 5 feet long was sampled and assayed 1.672 percent U_3O_8. These richer bodies are also being stockpiled at the ore bin, and at the time of inspection there was an estimated 10-15 tons in the bin. It is the plan of the Operator to mine 50 tons of the combined low-grade and high-grade ore to ship to the mill at Riverton, Wyoming.

In the limestone cliff northeasterly from the portal is a V-Shaped or inverted wedge of the reddish, brecciated, and altered material similar to that exposed in the workings near DDH's SA-9A and SA-11. It appears to be a filled sink-hole type of structure commonly found at the irregularly eroded surface of the Madison limestone. The filling and covering of the limestone is considered to be basal Amsden formation. In Wyoming this eroded contact between the Madison and Amsden formation is considered to be favorable for uranium mineralization. From the information obtained underground in crosscutting to DDH's SA-11 and SA-9A, it is possible the breccia material found could be correlated with the exposure on the Cliff face (fig. 1).

Indications so far in the exploration appear to favor the concentrations of uranium ore at or near the contact between the unaltered limestone and the brecciated, cave-filled material. Possibly the intersections of some of the water courses and contact zone would be favorable targets for future exploration.

Attachment
Distribution:
OME(4)
USBM(2)
USBM(AD)
Docket
Sample

R. D. Sample

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
10/5	Murphy	500
	Lamb	500
10/5	Talbot	800
10/6	GLS	130
10/6	Johnson	110
10/6	C	220
		500

OCT 6 1959

Memorandum

To: Executive Officer, OME Field Team, Region I

From: Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

We note that work under the subject contract was resumed on April 5, 1959, in accordance with Amendment No. 6. The completion date of the approved work under this amendment is September 1, 1959.

We also note in your letter dated July 31, 1959, to the Operator, that its request for an amendment to transfer unused diamond drilling footage to additional drifting footage was denied. In view of this letter and the completion date of the work, will you kindly initiate action in winding up the subject contract, including your recommendations regarding certification.

George C. Selfridge

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Harold Kirkemo
Member, Geological Survey

cc: Docket
Director's Reading File
Operating Committee
J. Paone, USBM
Harold Kirkemo, USGS
Chron.

FMMurphy/GMcC
October 5, 1959

43683

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 4 1959

DATE	INITIALS	CODE
8-4	gad	200
8/4	[illegible]	800
~~8/5~~	~~[illegible]~~	~~500~~

So. 157 Howard Street
Spokane 4, Washington

July 31, 1959

Mr. C. M. Hauptman, President
Midland Mining Company
644 Park ?
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

Enclosed is our letter of July 10 which was returned to us. Mr. George Gua, has kindly given us your new address.

Mr. Zoldok was unable to get in touch with you when he was in Billings last week but he proceeded to the property for an inspection. There was no one there but he mapped the new work. According to Zoldok's measurement, there remain about 90 feet of drifting, crosscutting, and/or raising. He could not find any evidence to support a justification for your renewed request to transfer the unused diamond drilling to additional drifting footage. We hope that raising to the higher ore showings in holes 7A and 8 and drifting to hole 9A may prove more encouraging.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

cc: OME (2)
USBM(2)
USBM(AD)
Sample

Wing G. Agnew, Member
U. S. Bureau of Mines

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1201 N. Division St.
Spokane 2, Washington

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 4 1959

DATE	INITIALS	CODE
8-4	gad	110
"		110
8/4		800
8/5	Murphy	500

July 29, 1959

MEMORANDUM

To: OME Field Team, Region I

From: S. W. Zoldok, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium), Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

An unsuccessful attempt was made to contact the Operator in Billings, Montana, the evening and morning of July 22 and 23, respectively. The project was inspected on July 23, 1959. The previous inspection was made on June 19, 1959, by R. D. Sample, U. S. Geological Survey.

No one was present at the property during the inspection and the raise was partially choked with muck from the last round; however, someone had slushed the muck from the face.

The incline was advanced 16 feet since Mr. Sample's visit for a total of 41 feet.

Since resumption of work after the winter's recess, the total advance has been 13 feet of crosscut and 41 feet of inclined raise.

The only mineralization noted was a few specs of autunite in the floor of the raise about 2 feet east of hole 7A, and some limonite stains along diverging fissures in the face of the raise. A sample taken across two feet of the iron stained material in the face failed to show any radioactivity when removed from the crosscut. (See sketch attached).

The status of the contract is given on the attached sheet.

S. W. Zoldok

Distribution:
OME (4)
USGS (2)
USBM (AD)
Docket
Zoldok

Date of contract: June 3, 1957
Termination date: September 1, 1959
Contract amount: $27,008.00
Amount spent: $20,071.30 (June 1959)

	Authorized	Advance	Completed
Stage I - completed			
Stage II			
Drilling (100' holes)	1,000 ft.		104 ft.
Drift, crosscut, winze and raise	400 ft.		(303.5 ft.)
Crosscut, north (non-DMEA)			40 ft.
" "			233 ft.
Winze			13 ft.
Sublevel Drift			16.5 ft.
Inclined raise		16 ft.	41.0 ft.
Chemical analysis	23 samples		5 samples

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 31 1959

DATE	INITIALS	CODE
7-31	gad	220
7/31	[illegible]	800
7-31	Murphy	500
		225

Sp. 157 Howard Street
Spokane 1, Washington

July 27, 1959

Mr. George Gray
5[illegible] Howard Avenue
Billings, Montana

Dear Mr. Gray:

On July 9, 1959 we received a letter from Mr. [illegible] M. Hamptman, under the letterhead of Midland Mining Company, 207 Beddow Building, Billings, Montana. Our reply to that address was returned stamped "Moved and left no address."

Can you please advise us as to Mr. Hamptman's or Midland Mining Company's present address?

Sincerely yours,

Donald R. MacLaren
For: A. E. Weissenborn
Executive Officer, OME
Field Team Region I

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group, Carbon Co., Montana
Contract No. Idm-E1097

cc: OME (2)
USBM (2)
USBM(AD)
Sample

Note to Operating Committee: Re our letter to you of July 13, 1959, Operator's letter of July 6, and our reply of July 10. Letter of July 10 was not delivered.

Yet check in payment of June MF-100, cashed 7/15/59 was apparently delivered!
Talbot

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington

July 13, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 17 1959

DATE	INITIALS	CODE
7-17	gad	vvo
~~7/20~~	~~M~~	~~500~~

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Enclosed are three copies each of a letter dated July 6, 1959, from the operator, and our reply.

The operator reports that the mineralization is improving but in view of your letter of April 7 we will not make any recommendation until after we make an inspection of the new work later this month.

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew
Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM(AD)
Sample

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 17 1959

DATE	INITIALS	CODE

So. 157 Howard Street
Spokane 4, Washington

July 10, 1959

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Dm-E1057

Dear Mr. Hauptman:

We have forwarded your letter of July 6, 1959, to our Washington office for their further consideration.

In reply to your similar request of March 23, we were advised that the value of the small ore deposit exposed by the incomplete work around hole SA-13 is hardly commensurate with the cost of exploratory work to find it, but that if, when the presently authorized work was resumed, it should disclose evidence that the additional footage requested might result in a significant discovery along a fracture or cave system the request would receive consideration.

Your July 6 progress report merely states that mineralization has increased in the last part of the advance toward the anomaly in hole SA-7a, although not in sufficient quantity to be commercial and that minor pods and streaks of ore have been found. As no mention is made of hole SA-8, we presume no ore has been found there since Sample's inspection the latter part of June.

On the basis of the information at hand, we cannot make any better case for your request than we did in March. We will make another inspection as soon as possible after the middle of July. If at that time you can show the examiner some encouraging indications of a mineralized structure or cave that could justify further work we will ask that your request be reconsidered.

By Field Team Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

King G. Agnew, Member
U. S. Bureau of Mines

cc: OME (2)
USGS (2)
USBM(AD)
Sample

MIDLAND MINING COMPANY

207 Holden Bldg. Telephone 2-7220
BILLINGS, MONTANA

EXTRA COPY
O. M. E.
RECEIVED JUL 17 1959

DATE	INITIALS	CODE

July 6, 1959

Mr. A. E. Weissenborn
Office of Minerals Exploration
U.S. Dept. of Interior
South 157 Howard Street
Spokane 4, Washington

Re: Docket # D-EA-4619
Sandra Group of claims
Carbon Co., Mont.

Dear Mr. Weissenborn,

Progress is being made steadily on the contract on the Sandra claims and I have no doubt that we will fullfill our present contract in good time before the September deadline.

I would like to again request that some action be taken on my past correspondence concerning the conversion of remaining drill funds to drifting. Since it does take time for such amendments, it seems to me that preparation should be made for the use of such funds if the occasion arises. I would suggest that you can get the approval of Washington for the conversion from drilling to drifting but that the decision for the use of these additional funds would rest with the field team after an appraisal of the work presently authorized is completed. I do not see how this suggestion would in any way jeopardize the Government's position but I can see that such preparation would prevent a long delay should we all agree that such further drifting would be advantageous to both parties.

As I mentioned in the last progress report, we are encountering more mineralization and the possibility continues to be good that we will find a substantial mineralized cave containing sizable reserves. For such a possibility, I think we should be prepared.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Hauptman
President

RECEIVED
JUL 1959
U.S. SPOKANE, WASH

CMH/am

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 13 959

DATE	INITIALS	CODE
7-13	gad	220
"	[illegible]	110
7/25	[illegible]	800
"	M	500

June 30, 1959

Memorandum

To: OME Field Team, Region I

From: R. D. Sample, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4619 (Uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

Work on the contract was suspended during the period "beginning October 19, 1958, and ending not later than June 1, 1959." (Amendment No. 6, dated December 12, 1958.) Rehabilitation of the Sandra adit and equipment was completed in April and May 1959, and the extension of the adit started the latter part of May. Two practical miners have been engaged to continue the remaining 153 feet of crosscutting, drifting, and raising authorized in the contract.

The workings were visited on June 19, 1959 and measurements taken on progress since October 19, 1958. The crosscut continues on grade in a N. 15° W. direction for 13 feet, then starts upward at 37° for a distance of 25 feet. The objective is the bottom radioactive anomaly found in DDH SA-7A (fig. 1). All the new workings are through massive, hard limestone and it is not necessary to timber. The incline measures 7 feet by 8 feet in height and width and it is not just a doghole. Muck is scraped to the ore cars at the main level by a slusher hoist. When the incline reaches hole SA-7A a raise will be driven to the lower anomaly. Present plans are that inclines and raises will explore the lower anomalies in holes SA-8, SA-11, and SA-9A according to the contract. When the miners get lined up properly they hope to pull one round of 4 or 5 feet per day. The quality of the new work is good. No mineralization has been found in the latest workings.

Attachment
Distribution:
OME (4)
USBM (2)
USBM(AD)
Docket
Sample

R. D. Sample

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/15/59	FMurphy	700
4/15	Knobel	700
4/16	Talbot	800
4/21	BCS.	130
4/17	JLynch	140
	Holland	140
4/21	Jones	110
4/20	a	220
		700

APR 21 1959

Memorandum

To: Executive Officer, OME Field Team, Region I

From: Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of claims
Carbon County, Montana
Contract No. Idm-E1097

This is to acknowledge receipt of the Washington Office copies of Amendment No. 7, executed by the subject Operator and OME Field Team, Region I.

Secretarial Order No. 2834 of September 22, 1958, Section 2 (a)(1)(v), states: "fixed or agreed unit costs not provided for in the contract shall not be added." Hence, the Field Team exceeded its authority in executing Amendment No. 7. However, since "raising" will constitute only a minor part of the work contemplated to complete the project, this office approves Amendment No. 7.

In the future, such amendments should be referred to this office for the approval and signature of the Director.

/s/ George C. Selfridge

RECEIVED (JLB)

APR 16 1959

ASSOC. SOLICITOR
MINERAL RESOURCES

APPROVED:

(sgd.) G. W. Josephson (JLB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JLB)
Member, Geological Survey

FMMurphy/gla
4-15-59
cc to: Director's Reading File
Operating Committee
THKiilsgaard, 5224
FMMurphy

43683

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 24 1959

DATE	INITIALS	CODE
4/24	a	220
4/24	[illegible]	800
4/27	[illegible]	~~700~~

So. 157 Howard Street
Spokane 4, Washington

April 15, 1959

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of claims
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

This is in further reference to your letter of March 23 and our reply of March 27, 1959, regarding your request that the balance of funds authorized for drilling be converted to additional drifting and raising.

We have been informed by OME that your request cannot be approved at this time because the work completed to date has found very little ore. However, if the remaining 153 feet of drifting, crosscutting, winzing, and/or raising now authorized discloses that the mineralization noted in holes SA-7, -8, -9, and/or -11 represent minable ore bodies, and indicates that additional footage might result in the discovery of significant uranium ore reserves, your request will be reconsidered.

By Field Team Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: OME (2)
USBM (2)
USBM(AD)
Prinz

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/6/59	Murphy	700
4-7	Crawford	700
4/7	Talbert	800
4/7	[illegible]	130
4/7	[illegible]	~~110~~
		~~100~~
4/8	[illegible]	220
		700

Memorandum APR 7 1959

To: OME Field Team, Region I

From: Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of claims
Carbon County, Montana
Contract No. Idm-E1097 No. 8

Your memorandum, dated March 27, 1959, relating to a proposed amendment to the subject contract which would allow unused drilling funds to be used for an additional 121 feet of crosscuts, drifts, winzes and raises, has been reviewed.

Unused footage remaining in the contract amounts to 153 feet. Amendment No. 6 providing a recess period was approved, in part, to allow the Operator to use this footage to determine the size of the deposit around hole SA-13 and to determine whether or not the mineralization noted in holes SA-7-9 and 11 represented minable ore bodies.

The value of the small ore deposit exposed by the incomplete work around hole SA-13 is hardly commensurate with the cost of the exploratory work to find it.

We agree that if the uranium mineralization noted in the above-mentioned holes represents a continuous deposit along the fracture system, it would constitute a significant deposit of ore. However, the Field Team has not presented any evidence that would justify this possibility. Hence, at this time we cannot approve the proposed amendment.

When the work is resumed in June and if it discloses evidence that the use of the additional footage requested might result in the discovery of significant uranium ore reserves, then the proposed amendment would receive consideration.

George C. Selfridge (esf)

APPROVED:

(sgd.) G. W. Josephson (esf)
Member, Bureau of Mines

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

THKillsgaard, Rm. 5224
FMMurphy

FMMurphy/gla
4-6-59
cc to: Director's Reading File
Operating Committee

Order No. 2834 - Delegation
September 23, 1958
Sec. 2 - Executive Officers

(a) (iii) a unit cost fixed by a unit-cost contract shall not be increased.

(iv) the specifications for a unit-cost contract shall not be lowered.

(v) fixed or agreed unit costs not provided for in the contract shall not be added.

Murphy

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington

March 27, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 1 1959

DATE	INITIALS	CODE
4/1	C	220
4/2	Murphy	130
		700

MEMORANDUM

To: Chairman, Operating Committee, OME

From: OME Field Team, Region I

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of claims
Carbon County, Montana
Contract No. Idm-E1097

Enclosed are three copies each of a letter dated March 23, 1959 from Mr. C. M. Hauptman, president of Midland Mining Company, and our reply.

The 400 feet of crosscutting, drifting, winzing, and raising now authorized will just barely be enough to reach the best drill hole showings. The showing in drill hole SA-13 has been found and followed by a short winze and drift for only a few tens of feet. Twenty-eight tons of unsorted material assaying 0.18 percent U_3O_8 have been shipped from this cave but the size of the cave has not been determined. Neither has it been determined whether or not there are more cave deposits along this solution channel. It is expected that other caves will be found near one or more of holes SA-7A, SA-8, SA-9A, and SA-11. If they are, it would be to the Government's advantage to explore them more fully, particularly if it can be done within the present total amount of the contract. As the caves are not all at the same altitude, both raising and winzing, as well as crosscutting and drifting, may be necessary. It is impossible to predict how much of each may be required.

No further rotary drilling will be authorized. If the $3,822.90 remaining for rotary drilling in Stages I and II, Amendment No. 2, could be used for further crosscutting, drifting, raising, and winzing on any favorable structures encountered by the 400 feet already allocated for those types of work, the chance of finding significant bodies of ore will be enhanced.

Therefore, we recommend that Amendment No. 2 be amended to delete from Stages I and II the items under rotary drilling, and substitute therefor:

in Stage I:

Holes from 0-100 feet in depth,	1900 ft. @ $3.40/ft.	$6,460.00
Holes from 100-200 ft. in depth,	410 ft. @ $4.85/ft.	1,988.50

in Stage II:

Holes from 0-100 feet in depth,	104 ft. @ $3.40/ft.	353.60

Depending on the results of the Stage II crosscutting, drifting, winzing, and raising -

Add Stage III:

Providing for 121 feet of crosscutting, drifting, raising and/or winzing	@ $31.50/ft.	$3,811.50

The new total costs will be:

Stage I	$10,116.70
Stage II	13,068.60
Stage III	3,811.50
Total for contract	$26,996.80

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM(AD)
Prinz

P. S. Also enclosed is an "Information Copy" of Amendment No. 7 that we have prepared and sent to the Operator for signature.

So. 157 Howard Street
Spokane 4, Washington

March 27, 1959

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of claims
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

From your letter of March 23, 1959, you have apparently misunderstood the work authorization in our letter of April 11, 1958. You have already been authorized to drift southeast to hole SA-9A on the sublevel, to crosscut to holes SA-7A, SA-8, and SA-11. We suggested that the crosscut be driven at the present grade at least to SA-8 in order to assure passing below the horizon of the ore intercepts in the respective drill holes, thereby lessening the probability of having to winze on the holes. The crosscuts to SA-7A and SA-11A can be driven at any convenient grade to lessen the vertical distance between the crosscut and the ore intercepts in the holes, but we suggest that you plan to cut the holes at least 10 feet below the ore intercepts.

We are enclosing the original and four copies of a proposed Amendment No. 7 which adds raising to the crosscutting, drifting, and/or winzing authorized in Amendment No. 4. If you incline the crosscuts to SA-7A and SA-11A as suggested, there should be enough raising to find out whether or not the showings in the drill holes are significant. We believe that this would make better use of the remaining funds allocated to drifting than your proposed use of this footage to follow the SA-13 solution channel to the northwest.

If the amendment meets with your approval, please sign all copies, retain that copy marked for the Operator, and return the rest to this office. If it does not meet with your approval, please return all copies, unsigned, to this office with your comments.

Your request that the balance of funds authorized for drilling be converted to additional drifting and raising will require an amendment to the contract which we are not authorized to make. We will refer your request to the Office of Minerals Exploration in Washington for consideration, but we do not know what their decision may be. OME is the successor agency to DMEA which ceased to exist June 30, 1958.

By Field Team Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure

cc: OME (3) w/Information Copy of Amend. 7 (signed by Exec. Officer)
USBM (2)
USBM(AD)
Prinz

Information Copy (OME)

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMA-4619

AMENDMENT NO. 7

It is agreed this 27th day of March, 1959, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, and Midland Mining Company, that Exploration Project Contract No. 14-01-0007 (Docket No. DMA-4619), dated June 3, 1957, as amended, is further amended, effective March 27, 1959, as follows:

1. In Exhibit "A", under Description of the Work, General Provisions, after the word "winding," add the word "raising," and after the word "winzes," add the word "raises."

2. In Exhibit "A", under Description of the Work, Stage II, first paragraph, after the word "drifting," add the word "raising."

3. In Amendment No. 2, Item 3, Estimated Costs of the Project, Stage II, under Fixed Unit Costs, as amended by Amendment No. 4, after the word "drifting," add the word "raising."

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, nor the agreed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

MIDLAND MINING COMPANY

A. A. Weissenborn, Executive Officer
OME Field Team, Region 1

Title

MIDLAND MINING COMPANY
DOCKET NO. DMA-[illegible]

JUSTIFICATION OF AMENDMENT NO. 7

Drill holes AA-7A, -8, -9A, and -11 showed radioactivity anomalies at different altitudes. Uranium ore bodies occur in debris filling old caves along solution channels in limestone. It is impractical to drive crosscuts and drifts on grades changing from as much as plus 20° to minus 20° between drill holes, and, in some cases, it is impossible to tell whether or not the next ore body will be above or below the existing crosscut.

Donald R. MacLaren

MIDLAND MINING COMPANY

207 Bedson Bldg. Telephone 2-7220
BILLINGS, MONTANA

March [illegible], 1959

Mr. A. E. Weissenborn
DMEA Field Team
U. S. Dept. of Interior
[illegible] Howard Street
Spokane [illegible], Washington

Re: Docket No. DMEA-[illegible] (U)
Sandra Group, Carbon Co., Mont.
Contract No. Idm-E[illegible]

Dear Mr. Weissenborn,

Midland Mining Company intends to resume DMEA contract work on the Sandra Group as soon as possible, preferably by April 15, 1959. We do not, however, have DMEA (or OME) authorization for further work on the property. Your last letter of authorization, dated April 11, 1958, permitted the advance of the adit to the intersection with drill hole SA-[illegible], which work has been accomplished. Your immediate attention to the following work proposals will be appreciated.

The balance of the underground drifting and/or crosscutting under Stage Two of our contract is 1[illegible] feet. We propose using this [illegible] as follows: Crosscut [illegible] to intersect SA-[illegible]a, approx. 4[illegible] feet, [illegible] to intersect SA-11, approx. [illegible] feet, advance the sublevel [illegible] to the [illegible] of SA-[illegible]a, approx. 54 feet, and [illegible] along the [illegible] and in the [illegible] of SA-1[illegible] with the drill rig.

Under Stage I of our contract there remains 1[illegible] feet of rotary drilling (1[illegible] foot holes) at $3.[illegible] per foot and [illegible]0 feet of rotary drilling (200 foot holes) at $[illegible].35 per foot. Under Stage II, 89[illegible] feet of rotary drilling (1[illegible] foot holes) at $3.40 per foot remains. The gross estimated cost for this remaining drilling is $38[illegible].00. We request that these surface drilling funds be reallocated to underground work (121[illegible] feet). For such underground work we propose raising to test the anomalies in SA-[illegible], SA-[illegible]a and SA-11 and thence exploration on the horizons found in the holes above the adit level.

We are quite sure that all of this work will be completed by September 1, 1959, the termination date.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Hauptman
President

CMH/aa

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 29 1958

DATE	INITIALS	CODE
12/29	C	220
12/30	CEG	800
"	[illegible]	700

So. 157 Howard Street
Spokane 4, Washington

December 19, 1958

Mr. C. M. Hauptman, President
Midland Mining Company
207 Haddon Building
Billings, Montana

Re: Docket No. IDEA-4619 (Uranium)
Midland Mining Company
Rambler Group of claims
Carbon County, Montana
Contract No. Idm-K1097

Dear Mr. Hauptman:

In accordance with your request contained in your progress report dated November 15, 1958, our Washington office has prepared a proposed Amendment No. 6 to your contract. This amendment provides for the suspension of work from October 19, 1958 to June 1, 1959, and extends the completion date to September 1, 1959.

Your attention is called to Item 3 of the amendment, which provides for automatic termination of the contract, as follows: (1) effective October 19,1958 if the work has not been resumed on or before June 1, 1959, or (2) effective September 1, 1959 if the work is resumed on or before June 1, 1959 but is not completed on or before September 1, 1959.

If the amendment meets with your approval, will you kindly sign all copies (original and four enclosed), retain that copy marked for the Operator, and return the rest to this office. If it does not meet with your approval, please return all the copies, including the Operator's, to this office with your comments.

Sincerely yours,

Wing G. Agnew
Acting Executive Officer
OME Field Team Region I

cc: OME (2)
USGS (2)
USBM(AD)
Frisz

A Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/11/58	Murphy	700
12/11	Kwolek	700
12/11	Talbut	800
12/12	GCS	130
"	Jmann	110
		~~110~~
		~~100~~
12/12	C	220
		700

r. A. E. Weissenborn
xecutive Officer
OME Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

12 DEC 1958

Re: Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed Amendment No. 6 to the subject contract, signed by the Acting Director for the Government. Also enclosed are two extra copies for Field Team use. You will note that the proposed amendment contains a pseudo certification.

If you and the Operator find the proposed amendment 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 amendment has been prepared in accordance with your letter of November 26, 1958.

Please advise the Operator that OME is the successor agency to DMEA.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures

FMMurphy/gla
12-11-58
cc to: Director's Reading File
Operating Committee
THKiilsgaard, 5224
FMMurphy

APPROVED:

C. T. BAROCH (JHB)
Member, Bureau of Mines

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

8623

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 11 1958

DATE	INITIALS	CODE
12/11	C	220
12/12	[illegible]	800
12/16	[illegible]	~~700~~

Office of Minerals Exploration
1201 N. Division St.
Spokane 2, Washington

December 2, 1958

Mr. C. M. Hauptman, President
Midland Mining Company
207 Medden Building
Billings, Montana

Re: Docket No. DMEA-4619 (uranium)
Midland Mining Company
Contract No. Ith-M1097
Monthly operating report for
September and October 1958

Dear Mr. Hauptman:

The subject monthly operating report has been processed and forwarded to the Disbursing Officer for payment.

It has been noted there is an error in the costs claimed for 78 feet of drifting @ $31.50 per foot. You have claimed $2,357 rather than the correct amount of $2,457, resulting in an underclaim of $100. This amount may be claimed on a subsequent voucher, as a separate item, with reference to the voucher on which the original claim was made.

We are withholding an amount of $800, pending resumption of work in the spring and upon receipt of your next voucher after work has been resumed.

By Field Team, Region I

A. E. Weissenberg, Exec. Officer
U. S. Geological Survey

Ving E. Agnew, Member
U. S. Bureau of Mines

cc: OME (2)
USGS (2)
Contract Admin. & Audit Div. (2)
USBM (AD)

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~DEFENSE MINERALS EXPLORATION ADMINISTRATION~~
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
D. M. E.
RECEIVED JAN 26 1959

DATE	INITIALS	CODE
1/26	C	220
"	FES	110
1/27	[illegible]	800
1/28	Murphy	700

November 26, 1958

MEMORANDUM

To: OME Field Team, Region I

From:q William C. Prinz, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4619 (Uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

C. M. Hauptman, President, Midland Mining Company, was contacted at his office in Billings, Montana, on November 22, 1958. Mr. Hauptman reported that operations at the property were suspended on October 18, 1958, one day after an interim inspection by John A. Bowsher, U. S. Bureau of Mines. Hauptman stated that the miners walked out on the 18th (to go hunting) and that a severe snowstorm followed on the 19th. Later in the month the operators were able to reach the property to lock up equipment and board up the portal of the adit. Following a short mild spell, Hauptman was able to drive to the property on the evening of November 20, but the portal was blocked by drifted snow. Unless the trend changes, this winter will probably be more severe than last, which was unusually mild so that the operator was able to continue exploration without interruption.

Under these circumstances, the operator requested, in his progress report of November 15, 1958, that work be recessed until spring. He did not give a date for the end of the recess, but during his conversation with me he stated that work could probably be resumed before June 1, 1959 and could be completed in 3 months.

To date, the operator has driven a long crosscut that will provide easy access to several mineralized zones found by the Stage I drilling program, but has not driven the short crosscuts to intersect these holes. It is very desirable that this work be completed so that a better evaluation of the potential of the property can be made. Therefore, it is recommended that the operator's request for a recess be approved.

Distribution:
OME (4)
USBM (2)
USBM(AD)
Prinz
Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
~~DEFENSE MINERALS EXPLORATION ADMINISTRATION~~
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 2 1958

DATE	INITIALS	CODE
12/2	C	220
		130
		700

November 26, 1958

Mr. George C. Selfridge, Chairman
Operating Committee, OME
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Selfridge:

Enclosed are two copies of the operator's progress report for September-October, dated November 15, 1958, in which he requests an amendment recessing the work effective October 19, 1958. The date for completion of the contract is February 1, 1959. ?

W. C. Prinz, one of our geologists, has just returned from Montana and states that there is already considerable snow in the Pryor Mountain area and that he did not attempt to get in to the property. Hauptman advised him that he would expect to be able to resume work some time in May 1959 and that it would require 3 months to complete the project.

Zones of radioactivity found in drill holes SA-11, SA-8 and SA-7 deserve further exploration in view of the uranium-bearing structure found near hole SA-13. In March, 28 tons of unsorted to poorly sorted material assaying 0.18 percent U_3O_8 was shipped from this structure. Subsequently the northerly drift was advanced to a point about 10 feet north of SA-8. It will be to the Government's advantage if crosscuts are run to holes SA-7 and SA-11 and raises run up these holes to the radioactive zone. It will also be advantageous to follow the northwest-striking mineralized structure near hole SA-13.

Therefore, we recommend that the contract be amended to authorize a recess from October 19, 1958 to June 1, 1959 and to extend the termination date from February 1, 1959 to September 1, 1959.

By Field Team, Region I

A E Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

for Thomas E Howard
Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure

cc: USBM (2)
USBM(AD)
Prinz

MIDLAND MINING COMPANY

207 Hedden Bldg. Telephone 2-7220
BILLINGS, MONTANA

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 2 1958

DATE	INITIALS	CODE

November 18, 1958

Defense Minerals Exploration Admin.
U. S. Dept. of Interior
South 157 Howard Street
Spokane 4, Washington

Re: Project DMEA-4819
Progress Report
Period Sept.-Oct., 1958

Gentlemen,

Work continued in the drift at the Sendra mine during the period Sept. 1 - Oct. 18. In that time, the heading was advanced 78 feet to intersect drill hole SA-8. Thus the drift totals 261 feet in length. On October 19, a severe snowstorm held up operations and we decided to close down for the winter. No work has been done on the property since that date except to clean up and lock up for the next few months.

Tell Ann will get done 1 1/2 figure 3 mo to complete

During the driving of the 78 feet of drift covered by this report, no significant mineralization was encountered. In fact the backgr and count in the drift decreased steadily until there was almost n appreciable count at the least. We pulled back to the last chance at about 180 feet and pulled one round before the [illegible] too hard. This lead seems quite strong and we would like to explore it next year next to recess.

At the time we resume work after this recess, we will submit a detailed map of the drift on the attitude of the mineralization encountered to date. Then we shall request permission to go ahead subject to approval of the field examiner and the field team.

Very truly yours,

[illegible]

[illegible] Bartman
President

omE

NOV [illegible]

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 18 1958

DATE	INITIALS	CODE
11/18	Sl. g.	225
		100
"	HEG	110
11/18	[illegible]	800
"	Murphy	200

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

1201 N. Division St.
Spokane 2, Washington

November 5, 1958

MEMORANDUM

To: OME Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium), Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited October 17, accompanied by C. M. Hauptman and G. Guay. The previous visit was on September 6.

During the interim the crosscut north was advanced 77 feet for a total of 260 feet from the portal. Three sets of drift timber were installed for a total of 185 feet of continuous timbering from the portal.

The last 80 to 85 feet of advance was through limestone. The last radioactive material, as detected by a geiger counter, was found about 25 feet beyond the intersection of the crosscut and rotary drill hole SA-13. The solution channel first intersected near SA-13, thence explored by winze and sublevel drifting, apparently is bearing more westerly away from the course of the crosscut.

Rotary drill hole SA-8 was intersected in the west wall of the crosscut and about 16 feet from the present face. There is no radioactivity at the intersection nor as far up the hole as the probe can be placed. Evidently the radioactive zone found in drilling SA-8 is probably 15 to 20 feet above the crosscut. Raise ?

There was no production during the interim. The ore in the bin was removed to the dryer about 3 miles below and on the road to Warren.

The status of the contract is given on the attached sheet.

John A. Bowsher

Distribution:
OME (4)
USGS (2)
USBM (AD)
Docket
Bowsher

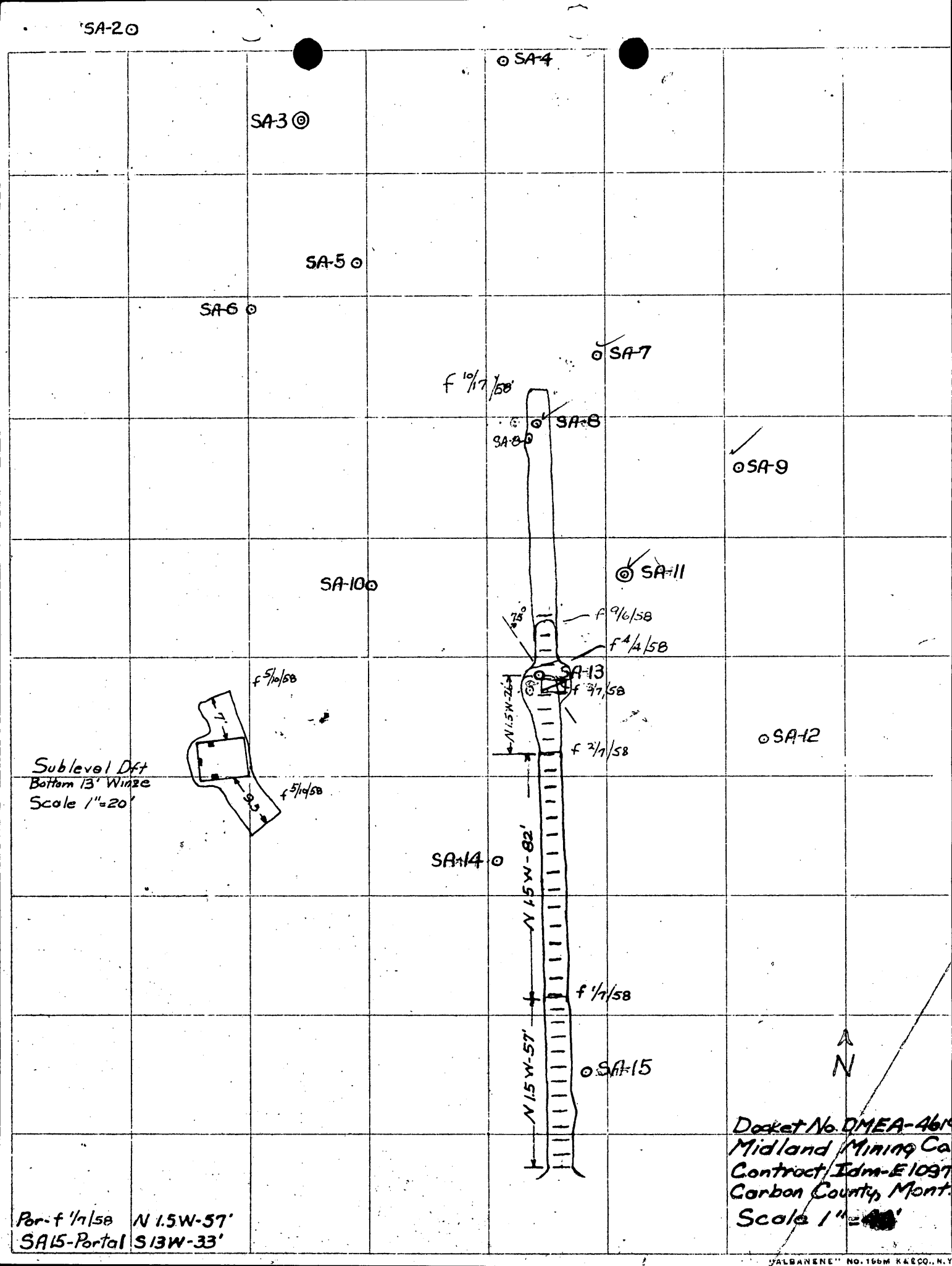
Contract No. Idm-E1097

Date of contract: June 3, 1957
Termination date: February 1, 1959
Contract amount: $27,008.00
Amount spent: 15,818.80 (thru August '58)

Stage I	Authorized	Advance	Completed	Vouchered Aug. '58
Bulldoze drill sites	80 hrs.		80 hrs.	80 hrs.
Drilling (100' holes)	2,000 ft.		2,058 ft.	1,900 ft.
" (200' holes)	500 ft.		410 ft.	410 ft.
Moving drill and standby	33 hrs.		33 hrs.	33 hrs.
Chemical analysis	25 samples		25 samples	25 samples
Stage II				
Drilling (100' holes)	1,000 ft.		104 ft.	104 ft.
Crosscutting (XCN)		77 ft.	260 ft. *	139.5 ft.
Winzing			13 ft.	13 ft.
Drifting (sublevel)			16.5 ft.	16.5 ft.
Total crosscutting, drifting, winzing	400 ft.	77 ft.	289.5 ft. **	169 ft.
Chemical analysis	23 samples		5 samples	5 samples

* 220 feet voucherable

** 249.5 feet voucherable


SA-2
SA-4
SA-3
SA-5
SA-6
SA-7
f 10/17/58
SA-8
SA-8-D
SA-9
SA-11
SA-10
f 9/6/58
f 4/4/58
SA-13
f 3/7/58
N 1.5 W-26'
f 2/7/58
SA-12
f 5/10/58
7'
9.2'
f 5/14/58
Sublevel Drft
Bottom 13' Winze
Scale 1"=20'
SA-14
N 1.5 W-82'
f 1/7/58
N 1.5 W-57'
SA-15
N
Docket No. DMEA-461
Midland Mining Co.
Contract Idm-E1097
Carbon County, Mont.
Scale 1"=
Por-f 1/7/58 N 1.5 W-57'
SA15-Portal S 13 W-33'
"ALBANENE" No. 166M K&E CO., N.Y.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

NOV 20 REC'D

DEC 2 1958

O.M.E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of Sept. & Oct., 1958 Docket No. DMEA 4619 Contract No. Idm-E1097

Operator's Name Midland Mining Company Minerals Uranium

Address 207 Hedden Bldg., Billings, Montana

Contract Amount, $ 27,008.00 Government Participation: 75 % Amount, $ 20,256.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Stage I 0-100		6460.00	6460.00		6460.00	6460.00
" Stage I 100-200		1988.50	1988.50		1988.50	1988.50
~~Bulldozing~~						
~~Crosscutting~~ " Stage II 0-100		353.60	353.60		353.60	353.60
Drifting etc. Stage II	2357.00	5323.50	7680.50	2357.00	5323.50	7680.50
Bulldozing Stage I		1200.00	1200.00		1200.00	1200.00
Moving & Standby Stage I		343.20	343.20		343.20	343.20
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis Stage I		125.00	125.00		125.00	125.00
" " Stage II		25.00	25.00		25.00	25.00
~~Payroll Taxes~~						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	2357.00	15,818.80	18,175.80	2357.00	15,818.80	18,175.80

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov. 3, 1958 *Payee Midland Mining Company

Per O. M. Hauptman Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse) Withheld 1767.75
200.00
Pay $1567.75

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1567.75

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 12/3/58 Vou. No. 2256
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E1097 in accordance with the terms of the contract.

Signature /s/ John A. Bowcher Title Mining Engr. Date 11/20/58

APPROVAL BY ~~DMEA~~ OME EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Dec. 3, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

NOV 20 REC'D

DEC 9 1958

O.M.E.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Sept. & Oct. 1958 Docket No. DMEA 4619 Contract No. Idm-R1097

Operator's Name Midland Mining Company Minerals Uranium

Address 207 Redden Bldg., Billings, Montana

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting etc. Stage II	ft.	2357.00	76	7620.50	247		400	31.50/ft.
~~Bulldozing~~ Stage I	hr.			1200.00	80		80	15.00/hr.
~~Sample analysis~~ Stage I	ea.			125.00	25 ✓		25	5.00/ea.
~~Sample analysis~~ Stage II	ea.			25.00	5 ✓		25	5.00/ea.
~~Loving & Stacking~~ Stage I	hr.			343.20	33		33	10.40/hr.
Drilling: ~~Pneumatic~~ Stage I 0-100	ft.			6460.00	1900		2000	3.40/ft.
~~Chain~~ Stage II 0-100	ft.			353.60	104		1000	3.40/ft.
~~Stripping~~ Stage I 100-200	ft.			1985.50	410		500	4.85/ft.
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		2357.00	16,175.80					Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		2357.00	16,175.80					

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date November 3, 1958 Operator Midland Mining Company

Per D. W. Hamilton Title President

Remarks:

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

/s/ John A. Dowsher
Mining Engr, 11/20/58

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

NOV 20 REC'D

MIDLAND MINING COMPANY

207 Hedden Bldg. Telephone 2-7220
BILLINGS, MONTANA

November 15, 1958

Defense Minerals Exploration Admin.
U. S. Dept. of Interior
South 157 Howard Street
Spokane 4, Washington

Re: Docket # DMEA-4619
Progress Report
Period Sept.-Oct., 1958

Gentlemen,

Work continued in the drift at the Sandra mine during the period Sept. 1 - Oct.18. In that time, the heading was advanced 78 feet to intersect drill hole SA-8. Thus the drift totals 261 feet in length. On October 19, a severe snowstorm held up operations and we decided to close down for the winter. No work has been done on the property since that date except to clean up and lock up for the next few months.

During the driving of the 78 feet of drift covered by this report, no significant mineralization was encountered. In fact the background count in the drift decreased steadily until there was almost no appreciable count at the breast. We pulled back to the seam crossed at about 180 feet and pulled one round before the weather got so bad. This lead seems quite strong and we would like to explore it when next we reopen.

At the time we resume work after this recess, we will submit a detailed map of the drift and the attitude of the mineralization encountered. Then we shall request permission to do work subject to approval of the field examiners and the field team.

Very truly yours,

MIDLAND MINING COMPANY

C. H. Hauptman

C. H. Hauptman
President

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 7 1958

DATE	INITIALS	CODE
10/7	C	220
17	Copy	100
"	FES	110
10/8	GEE	800
	~~Murphy~~	700

September 11, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited September 6, accompanied by C. M. Hauptman and G. Guay. The previous visit was on August 1.

The Operator reported that contract work had been resumed during the week of August 25-30.

The present face of the main XCN has been advanced to 183 feet from the portal. The advance from portal to 120 feet was voucherable DMEA work as authorized by mutual agreement. The advance from 120 feet to 160 feet, the intersection with drill hole SA-13, was non-DMEA work; DMEA work resumed at 160 feet. The voucherable advance, during the interim February 7-September 6, 1958, is from 160 feet to 183 feet.

One set of drift timber was installed, making a total of 169 feet of continuous timbering from the portal.

A solution channel, about 2 feet wide, carried in the left-center of the face, shows yellow tyuyamunite bearing mineralization by black light; in portions of the channel readings Geiger counter are off the second scale (X-10). This channel may well be the same northwest-southeast solution channel found in the sublevel and exposed for 16.5 feet along the strike. The strike of the channel may be west of a projected intersection with SA-7, about 85 feet beyond the present face; however, it may be best to drift along the channel unless it meanders too far westerly from drill holes SA-7 and SA-4 projected.

There was no production during the reporting period. The ore in the bin has not been removed.

The status of the contract is given on the attached sheet.

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher

John A. Bowsher

Contract No. Idm-E1097

Date of contract: June 3, 1957
Termination date: February 1, 1959
Contract amount: $27,008.00
Amount spent: 15,204.55 (thru August '58)

Stage I	Authorized	Advance	Completed	Vouchered Apr. '58
Bulldoze drill site	80 hrs.		80 hrs.	80 hrs.
Drilling (100' holes)	2000 ft.		2058 ft.	1900 ft.
Drilling (200' holes)	500 ft.		410 ft.	410 ft.
Moving drill and standby	33 hrs.		33 hrs.	33 hrs.
Chemical analysis	25 samples		25	25
Stage II				
Drilling (100' holes)	1000 ft.		104 ft.	104 ft.
Crosscutting (XCN)		18 ft.	183 ft. *	120 ft.
Winzing			13 ft.	13 ft.
Drifting (sublevel)			16.5 ft.	16.5 ft.
Total XC, dft, winze	400 ft.	18 ft.	212.5 ft.**	149.5 ft.
Chemical analysis	23 samples		3 samples	3 samples

* 143 feet voucherable
** 172.5 feet voucherable

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

So. 157 Howard Street
Spokane 4, Washington
August 26, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE
8/29 C 220
" Chron 700
(Murphy)

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Selfridge:

Enclosed are the Government and Audit copies of Amendment No. 5 to this contract. Other copies of this amendment are being distributed by copy of this letter.

Sincerely yours,

Donald R. MacLaren
Donald R. MacLaren
For: Wing G. Agnew
Acting Executive Officer
DMEA Field Team, Region I

Enclosures
cc: USBM(2)
USBM(AD) w/F.O. copy
Prinz

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

August 21, 1958

9-2 C 220
2 COM 100
" 110
9/2 800
9/4 700
(Murphy)

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, U. S. Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium) Midland Mining Co., Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited August 1; none of the operating personnel were present. The previous visit was on July 4.

An examination of the workings indicated that there had been no advance during the interim.

The ore that was in the loading bin at the track tipple has not been removed.

Mr. C. M. Hauptman was contacted in Billings regarding the status of the contract. Negotiations between the Pryor Mining Co. and the Midland Mining Co. were still pending to dissolve any and all joint interests.

Mr. Hauptman reported that a written request had been made to the Field Team to extend the termination date of the contract from August 1, 1958 to February 1, 1959. The Field Team subsequently recommended a recess from May 1, 1958 to September 1, 1958 with extension of the termination date as requested.

The Production Summary and Status of Contract remain the same as given in the memorandum report dated May 24, 1958.

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher

John A. Bowsher

DMEA

RECEIVED AUG 25 1958

DATE	INITIALS	CODE
8/25	C	220
8/26	GEF	800
"	[illegible]	700
	Murphy	

So. 157 Howard Street
Spokane 4, Washington
August 20, 1958

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract Idm-E1097

Dear Mr. Hauptman:

Enclosed are the original and four copies of a proposed Amendment No. 5 to this contract, signed by the Administrator for the Government, which has been prepared in accordance with the request contained in your letter of July 28, 1958, that an extension of the termination date of the contract, from August 1, 1958, to February 1, 1959, be allowed and that a recess be provided for from May 1, 1958, to September 1, 1958.

If this amendment meets with your approval, please sign all copies, retain the one marked for the Operator, and return the other copies to this office. If the amendment does not meet with your approval, please return all copies to us.

Sincerely yours,

Donald R. Maclaren
Alternate Acting Exec. Officer
DMEA Field Team, Region I

Enclosures

cc: DMEA(2)
DTRI(2)
DEM(AD)
Drfts

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/14/58	Murphy	700
8/14	Kiersek	700
8-14	Chambers	800
8/15	[illegible]	130
8/15	Johnson	110
"	[illegible]	100
8/11	[illegible]	220

700

AUG 15 1958

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed Amendment No. 5 to the subject contract, signed by the Administrator for the Government. Also enclosed are two extra copies for Field Team use.

If you and the Operator find the proposed amendment 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 amendment has been prepared in accordance with the Field Team's recommendations transmitted August 1, 1958.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

FMMurphy/gla
8-14-58
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
FMMurphy

APPROVED:

P. F. Yopes
Member, Bureau of Mines

N. E. Nelson
Member, Geological Survey

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8-6	Murphy	700
8-6	Knouse	140

C

INTERIOR DEPT.
AUG 6 - 1958
SOLICITOR

August 6, 1958

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: F. L. Knouse, Acting Director
Division of Rare and Miscellaneous Metals

Subject: Preparation of Amendment No. 5

Docket No. DMEA-4619
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Will you kindly prepare an Amendment No. 5 to the subject contract allowing a recess period from April 21, 1958 to on or before October 1, 1958, and the completion date to February 1, 1959. Also, the period for repayment should be extended to 12 years (see Amendment No. 3).

F. L. Knouse

FMMurphy/izm 8-6-58
cc: Mr. Murphy

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

August 1, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 4 1958

DATE	INITIALS	CODE
8/4	H. g.	225
		130
8/5	7 mcy	700

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra group of claims
Carbon County, Montana
Contract Idm-E1097

Dear Mr. Selfridge:

Enclosed are two self-explanatory letters dated July 28, 1958, from the Midland Mining Company, one of which is a request for an extension of the termination date of the contract, from August 1, 1958 to February 1, 1959, and the other a progress report for May, June, and July 1958, giving their reasons for the request for extension.

The Field Team recommends that an appropriate amendment be prepared extending the termination date as requested by the Operator, and to provide for a recess from May 1, 1958 to September 1, 1958.

By Field Team Region I

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E Howard
for: Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures as above

cc: USBM (2)
USBM(AD)
Prinz

MIDLAND MINING COMPANY

207 Holden Bldg. Telephone 2-7229

BILLINGS, MONTANA

July 28, 1958

Mr. A. R. Weissenborn, Exec. Officer
DMEA Field Team
U.S. Dept. of Interior
South 157 Howard Street
Spokane 1, Washington

Re: Docket No. DMEA-4619 (U)
Sandra Group
Carbon Co., Mont.
Contract No. 14m-[illegible]

Dear Mr. Weissenborn,

Again I would like to request an extension of our contract. Such an extension, from a termination date of August 1, 1958 to February 1, 1959, would of course be for time only and would not change the other terms of the contract.

As I have indicated in the reports for the months of May, June and July enclosed herewith, we have had some difficulty from both a financial and equipment standpoint in carrying out the work of the contract. But we are hoping to again start operating in a short time and are extending every effort to do so.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Hauptman
President

CMH/mm
Encl.

OFFICIAL FILE COPY
DMEA
RECEIVED [illegible] 1958

DATE	[illegible]	[illegible]

RECEIVED
30
JUL 29 1958
U.S.G.S.
[illegible]

Mac
Al
Bill

ANSWERED

MIDLAND MINING COMPANY

207 Holden Bldg. Telephone 2-7220
BILLINGS, MONTANA

July 28, 1958

Defense Minerals Exploration Administration
U.S. Dept. of Interior
South 157 Howard Street
Spokane 4, Washington

(Second original)

Re: Docket No. DMEA-4613
Progress Report
Period May, June and
July, 1958

Gentlemen,

During May, after the late spring snows had melted, we attempted to continue work on the lower level through the winze. The mechanical set-up was not effective, however, and efforts were begun to obtain a mucking machine to facilitate handling of the rock.

During this time, a combination of factors, such as poor returns on the ore shipped, high cost of the drilling program (much over our original estimate), costs of continuous timbering, etc., strained the company's finances to the limit. We therefore closed down all operations pending the solution of this problem. Consequently we have done no work under the contract for the subject reporting period.

We are now negotiating a proposition to continue the work and it appears that we will be able to resume work sometime during August.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Hauptman
President.

CMH/am

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 4 1958

DATE	INITIALS	CODE

RECEIVED
JUL 30 1958
U.S.G.S.
SPOKANE, WASH.

OFFICIAL FILE COPY
DMEA
RECEIVED
4 1958

DATE		CODE
8-4	C	220
8/4	1007	800
8/5	7 MM	700

Bo. 157 Howard Street
Spokane 4, Washington

July 28, 1958

Mr. C. M. Hauptman, President
Midland Mining Company
734 Midland National Bank Bldg.
Billings, Montana

Re: Docket No. DMEA-4619 (uranium)
Sandra group of claims
Carbon County, Montana
Contract Km-E1097

Dear Mr. Hauptman:

Our field examiners report that no DMEA project work has been done at the Sandra property since their visit of May 10, 1958.

Whenever a prolonged interval during which work under your DMEA contract will not be done, you should request a recess giving the date when work ceased and the date on or before which work will be resumed.

As the completion date of your contract is August 1, 1958, you should also request an amendment extending that date if you intend to complete your contract. Such a request should state the date by which the work will be completed.

In the event that you do not contemplate completing your contract, you should request termination by mutual consent, stating your reasons.

Your prompt attention to these matters will be appreciated.

By Field Team Region I

cc: DMEA (2)
UMM (2)
UMM(AD)
Prinz

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

MIDLAND MINING COMPANY

207 Hedden Bldg. Telephone 2-7220
BILLINGS, MONTANA

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 7 1958

DATE	INITIALS	CODE
8/7	H. G.	225
"		110
"	~~[illegible]~~	~~[illegible]~~

July 28, 1958

Defense Minerals Exploration Administration
U.S. Dept. of Interior
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. ~~DMEA~~ 4619
Progress Report
Period May, June and
July, 1958

Gentlemen,

During May, after the late spring snows had melted, we attempted to continue work on the lower level through the winze. The mechanical set-up was not effective, however, and efforts were begun to obtain a mucking machine to facilitate handling of the rock.

During this time, a combination of factors, such as poor returns on the ore shipped, high cost of the drilling program (much over our original estimate), costs of continuous timbering, etc., strained the company's finances to the limit. We therefore closed down all operations pending the solution of this problem. Consequently we have done no work under the contract for the subject reporting period.

We are now negociating a proposition to continue the work and it appears that we will be able to resume work sometime during August.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Hauptman

C. M. Hauptman
President

CMH/am

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

July 10, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE | CHECK | AMOUNT
8/4 | J.G. | 225
5 | COM | 100
4 | | 110
8/7 | | 800
~~4 | | 100~~

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited on July 4; none of the operating personnel were present. The previous visit was on June 6.

An examination of the project workings indicated that there had been no advance during the interim.

The ore (about 15 tons) that was in the loading bin at the track tipple has not been removed.

Mr. C. M. Hauptman was contacted in Billings for discussion of the status of the contract. Obtaining mining equipment to advance the sublevel drift has been held up while certain co-owners in the Midland Mining Company and the Pryor Mining Company release their ownership in Pryor Mining Company to advance exploration and development of the Sandra Group, leased by Midland Mining Company from the owner, Pryor Mining Company.

Mr. Hauptman was informed that he should request an extension of the contract termination date (August 1, 1958) if the contract work was expected to be completed; he was also informed that he should submit narrative reports for the calendar months when no voucherable DMEA advance was made.

The Production Summary and Status of Contract remain the same as given in my memorandum report dated May 24, 1958.

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher

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

1201 N. Division St.
Spokane 2, Washington

June 12, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 22

DATE	INITIALS	
7/22	C	220
7/22	Com	100
"	[illegible]	110
7/22	[illegible]	800
~~7/23~~	~~[illegible]~~	~~700~~

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited June 6; none of the operating personnel were present. The previous visit was on May 10.

An examination of the project workings indicated that there was no advance of any work during the interim.

The ore (about 15 tons) that was in the loading bin at the track tipple has not been removed.

Messrs. C. M. Hauptman and G. Guay, Operators, were contacted in Billings for discussion of the status of the contract. The Operators are negotiating for an air mucking machine and anticipate advancing the sublevel drift as well as the main crosscut during June.

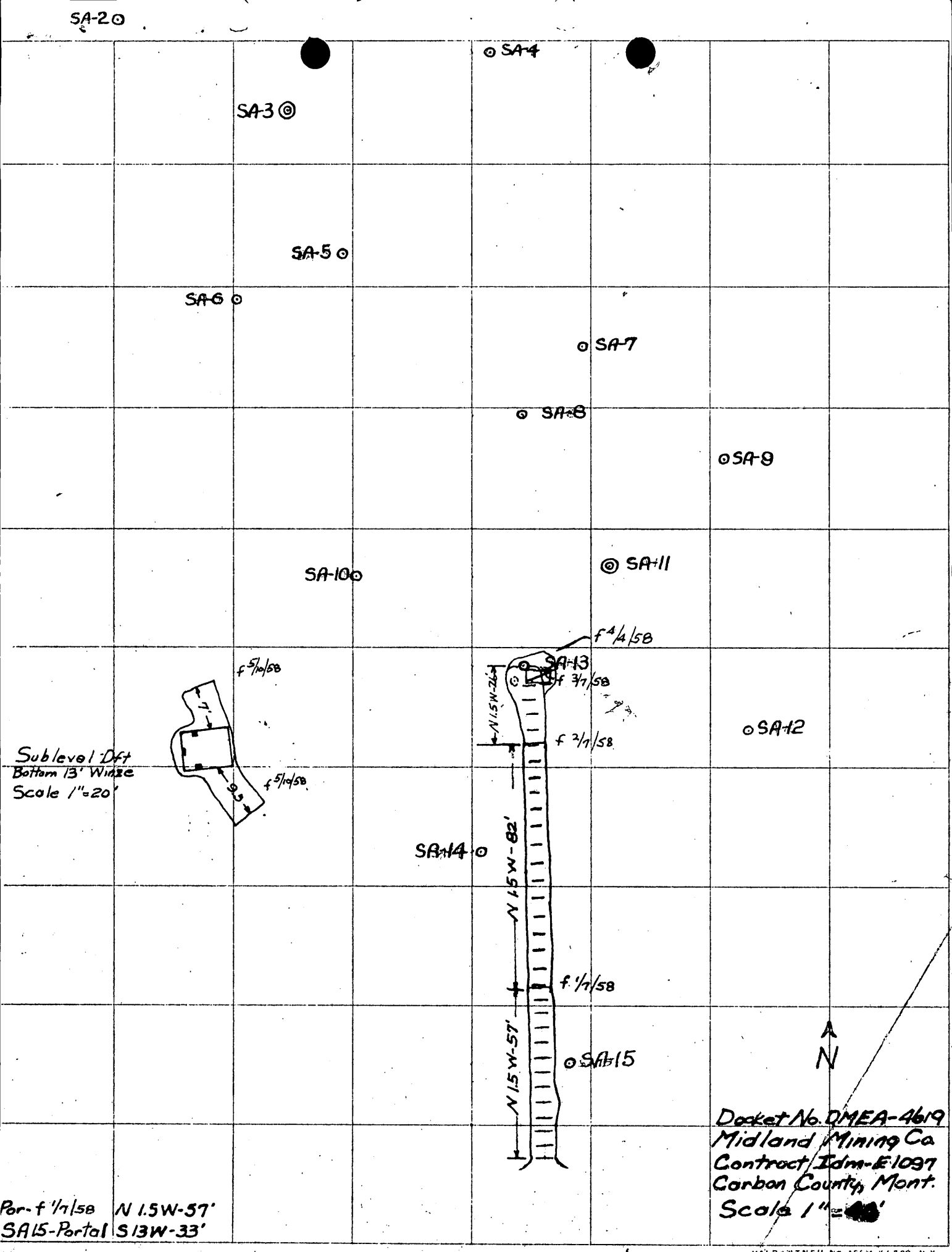
They also reported that the Fremont Uranium custom mill at Riverton, Wyoming, has allocated 1,000 tons per year (about 85 tons per month) from the company's Sandra group of claims.

For the interim there is no change in the previous (May 10) Production Summary and the Status of the Contract.

Attached are sketches to show the advance made as of May 10 and reported in my memorandum dated May 24, 1958.

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher


SA-2
SA-4
SA-3
SA-5
SA-6
SA-7
SA-8
SA-9
SA-10
SA-11
SA-12
SA-13
SA-14
SA-15
f 4/4/58
f 3/7/58
f 2/7/58
f 1/7/58
f 5/10/58
f 5/10/58
N 1.5W-26'
N 1.5W-82'
N 1.5W-57'
7'
9.5'
Sublevel Drft
Bottom 13' Winze
Scale 1"=20'
N
Docket No. DMEA-4619
Midland Mining Co
Contract Idm-E1097
Carbon County, Mont.
Scale 1"=[redacted]'
Por-f 1/7/58 N 1.5W-57'
SA15-Portal S 13W-33'

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 22 1959

DATE	INITIALS	CODE

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 9 1958
DATE | INITIALS | CODE
6/9 | H.S. | 225
10 | Corr | 100
" | Fel | 110
6/10 | Hud | 800
6/11 | Murphy | 900

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
1201 N. Division St.,
Spokane 2, Washington

May 24, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited May 10; none of the operating personnel were present. The previous visit was on April 4.

From the bottom of the 13-foot winze at the end of the 169-foot XCN the Operator had advanced NW and SE on the mineralized solution channel first intersected in the face of the XCN. The advance from the winze timber set was SE 9.5 feet and NW 7 feet. The cross section at both faces is about 6'x7'.

The solution channel in the sublevel headings is about 2.5-3 feet wide enclosed in cherty limestone. Geiger counter readings were taken on the solution channel in both headings. In the NW heading the instrument scale (second scale X-10) was read at 0.10 MR/hr., equivalent to 1.0 MR/hr. In the SE heading the instrument scale (second scale X-10) was read at 0.05 MR/hr., equivalent to 0.5 MR/hr.; near the floor the east side of the channel was read off the second scale and on the third scale (X-100) at 0.05 MR/hr., equivalent to 5.0 MR/hr.

Ore from the sublevel drift has been sorted at the track tipple and the amount segregated in the bin is estimated at about 15 tons.

Production Summary

Period	Tons (est.)	Grade % U_3O_8 (est.)
March 1958	28	0.18
April	15	-
Totals	43	0.18

The status of the contract is:

Contract date: June 3, 1957
Termination date: August 1, 1958 (as amended)
Amount of contract: $27,008.00
Amount spent: 15,204.55 (thru April 1958)

Stage I	Authorized	Advance	Completed	Apr.'58 Vouchered
Bulldoze drill site	80 hrs.		80 hrs.	80 hrs.
Drilling (100' holes)	2000 ft.		2058 ft.	2000 ft. *
" (200' holes)	500 ft.		410 ft.	410 ft.
Moving drill and standby	33 hrs.		33 hrs.	33 hrs.
Chemical analysis	25 samples		25 samples	25 samples
Stage II				
Drilling (100' holes)	1000 feet		104 ft.	104 ft.
Crosscutting			165 ft. **	120 ft.
Winzing			13 ft.	13 ft.
Drifting (sublevel)		16.5 ft.	16.5 ft.	16.5 ft.
Total XC, dft., winze	400 ft.	16.5 ft.	194.5 ft.	149.5 ft.
Chemical analysis	23 samples		5 samples	5 samples

* 100' deleted because of incomplete hole - letter from C.O. 12/5/57
** Maximum allowable from portal to SA-13 is 120 feet.

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 5 1958

DATE	INITIALS	CODE
5/5	C	220
11	[illegible]	700

So. 157 Howard Street
Spokane 4, Washington

April 28, 1958

Mrs. Dorothy Long, Certifying Officer
DMEA Field Team, Region I
1201 North Division Street
Spokane 2, Washington

Re: Docket No. DMEA-~~4619 (Uranium)~~
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

Dear Mrs. Long:

Attached is Check No. 50, dated April 24, 1958, for $27.38 from Fremont Minerals, Inc., of Chicago, Illinois, which represents the Government royalty (5%) due on ore shipped (lot 33-S) by Midland Mining Company from its Sandra claim to the Riverton Buying Station of Fremont Minerals, Inc., in accordance with the attached settlement sheet.

Copies of correspondence between this office and Fremont Minerals, Inc., and between this office and Midland Mining Company have been distributed previously regarding this transaction.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Attachments as indicated
cc: Operator
DMEA w/encl.
CPF

4-29-58
D. L.
$27.38

[redacted]
BUILDING
COLORADO

SETTLEMENT STATEMENT

LIQUIDATION NO. 39
DISTRICT Riverton
DATE April 26, 1956

[illegible] 4/7/56	LOT NO 33-8	SHIPPER'S LOT NO	
A.E.C. LIC. NO R-2075	CONTRACT NUMBER		
PAID TO Midland Mining Co.	CLAIM NAME [redacted]	STATE [redacted]	
PAYEE'S ADDRESS 207 Hudson Bldg. — Billings, Montana	MINE DIST [redacted]	COUNTY [redacted]	
[illegible]	HAULAGE DISTANCE [redacted]	TO PROCESS / TO STOCKPILE 39 4/7/56	

LOT NO	WET WEIGHT (LBS)	% H_2O	DRY WEIGHT (LBS)	SETTLEMENT ASSAYS (%) U_3O_8	V_2O_5	$CaCO_3$	CONTENTS (LBS) U_3O_8	V_2O_5	$CaCO_3$
33-8	[redacted]	[redacted]	[redacted]	[redacted] 0.18 7/17/56		[redacted]	[redacted]		[redacted]
WET TONS	[redacted]	DRY TONS	[redacted]						

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 5 1956
CODE

ITEM		TONS	POUNDS	UNIT PRICE	AMOUNT
BASE PRICE			[redacted]	[redacted]	[redacted]
PREMIUMS U3 O8 IN EXCESS OF 4 LB./TON				0.75	
U3 O8 IN EXCESS OF 10 LB./TON			3.6 #/ton 7/17/56	0.25	
TOTAL U3 O8 PAYMENT					[redacted]
PENALTIES LIME ($CaCO_3$ IN EXCESS OF 6%)	[ ]				[ ]
OTHER	[-]				[ ]
TOTAL FOR ORE					[redacted]
[redacted]				[redacted]	
DEVELOPMENT ALLOWANCE			[redacted]	0.50	[redacted]
HAULAGE ALLOWANCE [redacted] MILES		[redacted]		0.06	[redacted]
TOTAL [redacted] ALLOWANCES					[redacted]
TOTAL GROSS SETTLEMENT					[redacted]
DEDUCTIONS: [redacted]	[-]				[[redacted]]
NET SETTLEMENT					[redacted]

DISTRIBUTION

	PAYEE	AMOUNT	CHK NO
5	[redacted]	$ [redacted]	[redacted]
95	Midland Mining Co.	[redacted]	[redacted]
			[redacted]

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

Approved T. J. Vagenthaler

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

April 9, 1958

DMEA
RECEIVED APR 28 1958

DATE	INITIAL	CODE
4-28	C	220
29	Com	100
"	JEG	110
4-30	[illegible]	800
"	JWM	700

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited April 4, accompanied by Messrs. W. C. Prinz, U. S. Geological Survey, and C. M. Hauptman, Operator. The previous visit was on March 7.

During the interim the XCN has been advanced 4 feet for a total length of 169 feet from the portal. It has been timbered (8x8 squared pieces and 3-inch back lagging) with standard drift sets for a linear distance of 164 feet from the portal; the last two sets are 3-post wide and the cross-section at the last set, 5 feet from the face, is 16x12.5 feet outside timber. The advance of the XCN beyond 120 feet is non-DMEA work.

The Operator has sunk a winze (11'x8' rock section) in the last two drift sets (3-post wide) to a depth of 13 feet below the sill track level, to follow a northwest-southeast trending mineralized solution channel intersected in the face of the drift. Limestone was encountered in the floor of the winze, apparently the limit of the channel and indicating the bottom of the cave debris.

Immediate exploration advance was discussed by those present and it is believed the Operator will make written request to follow the northwest-southeast solution channel from the bottom of the winze; this advance should be authorized.

About 28 tons of tyuyamunite-bearing material was mined from the present face, back and winze area and trucked (contracted) to the Fremont mill at Riverton, Wyoming; the analysis will be reported upon closing the lot (25 tons) at the mill.

The status of the contract is:

Date of contract: June 3, 1957
Termination date: August 1, 1958
Amount of contract: $27,008.00
Amount spent: 14,265.30 (thru Feb.)

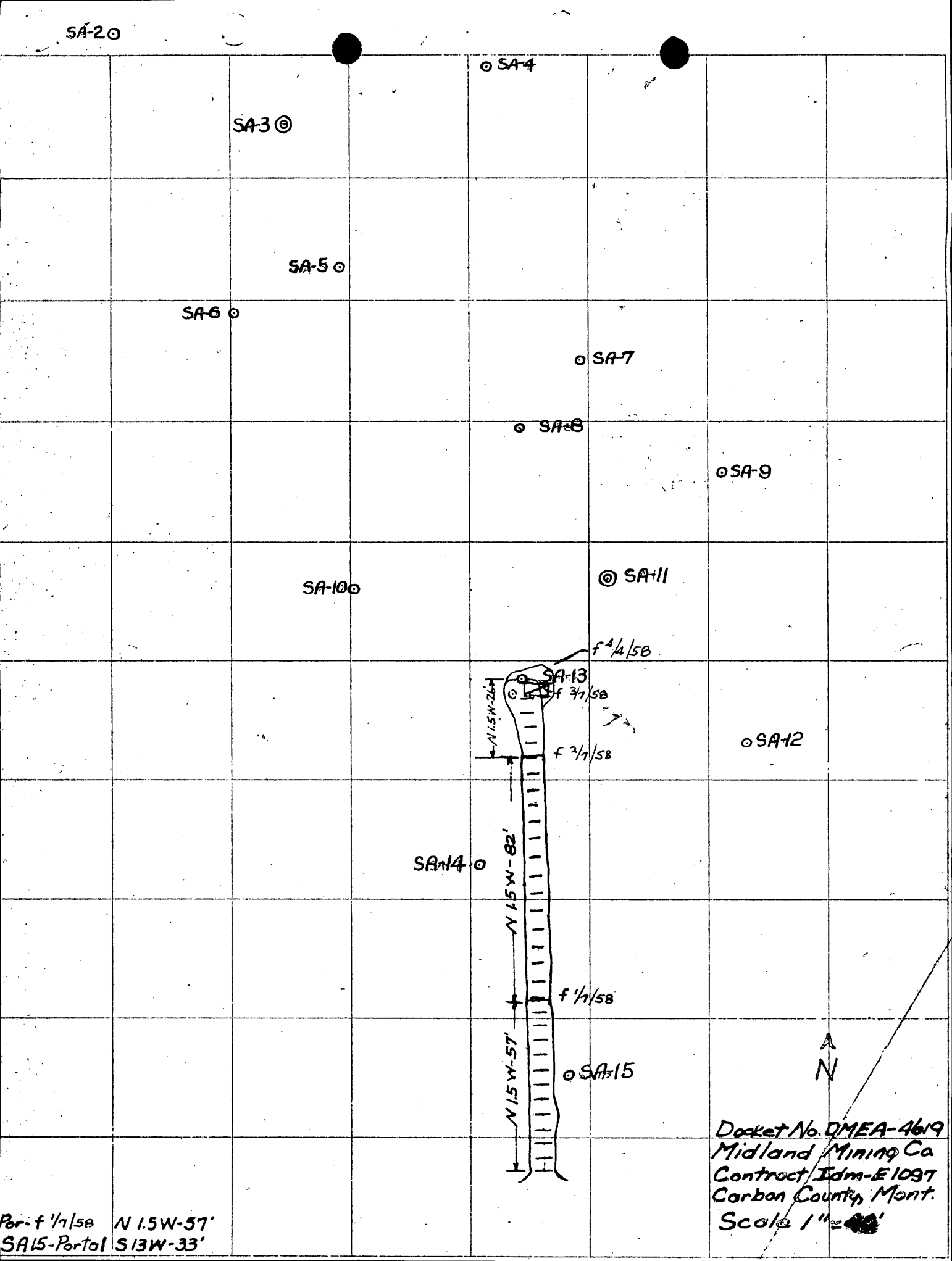
Stage II		Authorized	Advance	Completed	Jan. Vouchered
Drilling (100' holes)		1,000 ft.		104 ft.	104 ft.
Crosscutting	(Amend. #4)			165 ft. *	120 ft.
Winzing	"		13 ft.	13 ft.	
Drifting	"				
Total XC, dft, winze	"	400 ft.	13 ft.	178 ft.	120 ft.
Chemical analysis		23 samples		3 samples	3 samples

*Maximum allowable from portal to SA-13 is 120 feet.

Note: No DMEA advance in February; therefore no voucher for that month.

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher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Docket No. OMEA-4619
Midland Mining Co
Contract Idm-E 1097
Carbon County, Mont.
Scale 1" = [redacted]'
Por-f 1/7/58 N 1.5 W-57'
SA15-Portal S 13 W-33'

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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April 8, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: W. C. Prinz, Geologist, U. S. Geological Survey

Subject: Interim inspection report, Docket No. DMEA-4619 (Uranium), Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The property was examined April 4, 1958, accompanied by J. A. Bowsher, Mining Engineer, U. S. Bureau of Mines, and C. M. Hauptman, Operator. Since my last inspection on February 14, 1958, the north end of the adit east of hole SA-13 has been enlarged and a 13-foot vertical winze sunk on the mineralized solution channel found near the drill hole (see attached map). About 28 tons of ore have been mined from the north end of the adit and from the winze; the grade of this ore is unknown at the present.

The northwest-striking mineralized solution channel found in the adit changes to a more northerly strike downward in the winze. Its dip is usually steeply east to vertical. The mineralized zone is in cave debris and it consists of streaks or stringers of tyuyamunite-bearing silt or clay, or tyuyamunite-stained limestone boulders. On the south wall of the winze near its floor, high grade streaks wrap around a rather large limestone boulder. The mineralized zone is bordered on the west by solid limestone that probably is one wall of the cave. The floor of the winze was carefully examined, but no trace of either the mineralization or the solution channel could be found. Some cave debris was found in the east side of the floor of the winze but most of the floor is limestone. It appears that the bottom of the cave is at or near the bottom of the winze.

The Operator, in his letter of April 7, 1958, requested authorization to use 50 feet of contract drifting footage to follow this mineralized zone northwesterly and southeasterly from the bottom of the winze. It is recommended that this request be approved. Furthermore, in view of the results of underground work around drill hole SA-13, it is recommended that the Operator, should he so request, be permitted to use the balance of the underground footage testing the zones of anomalous radioactivity found in some of the other drill holes, such as SA-9A, SA-11, SA-8, SA-7A, and possibly SA-4.

Distribution:
DMEA (Orig. & 3) Docket
USBM (2) Prinz
USBM (AD)
Enclosure

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RECEIVED APR 14 1958

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So. 157 Howard Street
Spokane 4, Washington

April 11, 1958

Mr. C. M. Hauptman
President
Midland Mining Company
207 Hedden Building
Billings, Montana

Work Authorization
Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

This is in reply to your letter of April 7, 1958, in which you request authorization to do 50 feet of drifting in a southeasterly-northwesterly direction from the bottom of the winze.

Your proposed 50 feet of sublevel drifting is hereby authorized. In view of the now apparent irregularities of the channelways and caves and the radioactivity found in hole SA-9A, we believe you should follow the cave at least 30 feet to the southeast.

The relationship between the radioactivity in hole SA-13 and the extremely irregular course of the caves shows quite clearly that further exploration of the radioactivity found in holes SA-11, SA-8, and SA-7A is warranted. We suggest that the adit be continued beyond the top of the winze toward SA-7 followed by short crosscuts to SA-11 and, if necessary, to SA-8. If you continue the adit on the present grade, which we understand is essentially level, the sill will be about 23 feet below the radioactive zone in SA-11, about 17 feet below the lowest zone in SA-8, and about 38 feet below the lowest zone in SA-7A. It would be better to pass below the ore than above it as happened in SA-13 so we suggest that the adit be continued on the same level grade at least to SA-8. The information regarding the size and shape of the ore shoots gained by exploration at holes SA-13, SA-9, SA-11 and SA-8 will possibly indicate whether or not the grade of the adit drift should be raised between SA-8 and SA-7A. Another guide will be the bottom of the caved material.

By Field Team, Region 1

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (3) w/3 copies of incoming
USBM (2)
USBM (AD)
Prinz

MIDLAND MINING COMPANY

207 Holden Bldg. Telephone 2-7220
BILLINGS, MONTANA

April 7, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED APR 14 1958

DATE	INITIALS	CODE

Mr. A. E. Weissenborn, Exec. Officer
DMEA Field Team, U.S.D.I.
South 157 Howard Street
Spokane 4, Washington

RE: Docket No. DMEA-4619(U)
Contract No. idm-E1097
Sandra Group
Carbon Copy Attached

Dear Mr. Weissenborn,

Last week end the two members of the field examining team were at our project for their monthly examination. At that time we were at a depth of thirteen feet in the winze authorized in your letter of February 18. The miners had been cleanin g up the winze preparatory to timbering and had the floor cleaned for a thorough examination.

At this time we concluded that the bottom of the cave had been reached and are therefore ready for further authorized exploration work. This winze, as you know, was sunk to explore a mineralized seam discovered near hole SA-13. In the recently sunk winze, this seam appears to disappear on the floor but is visible on both the east and west (or rather the southeast and northwest) walls of the winze. We would like to explore along this seam with the hope of finding some sizable orebodies. The obvious move is to either the southeast or northwest.

I would like to request, therefore, that we be permitted, under the terms of our contract, to crosscut along this seam for about fifty feet in a southeasterly-northwesterly direction. Such an amount of work would fairly well occupy us until the end of the month at which time the field team will again be at the property for an evaluation of the work.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Hauptman
President

RECEIVED
Air Mail
APR 8 1958
U.S.G.S.
SPOKANE, WASH

CMH/am

DMEA

So. 157 Howard Street
Spokane 4, Washington

April 8, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED APR 14 1958

DATE	INITIALS	CODE
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	[illegible]	[illegible]

Mr. T. J. Vogenthaler, Manager
Administrative Division
Fremont Minerals, Inc.
Farmers Union Building
Denver 3, Colorado

Re: Docket No. DMEA-[illegible] (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Vogenthaler:

Thank you for your letter of April 4, 1958, regarding two points in our letter of March 31, 1958, which cause you some concern.

It would appear probable 5 percent rate will apply at least as long as AEC premium, bonus, and haulage allowances are in effect, but Mr. Hauptman will have to decide whether or not to designate it as a flat percentage.

Regarding the settlement sheets, if the copy you send us is reproducible, we can make our extra copies. If it is not and you would send us some blank forms, we can make the other copies we need.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: Mr. C. M. Hauptman
Midland Mining Company
207 Hedden Bldg.
Billings, Montana

DMEA(3) w/3 copies of incoming
USBM (2) w/2 " " "
USBM (AD) w/copy " "
Prinz

(6)

FREMONT MINERALS, INC.

FARMERS UNION BUILDING · DENVER 8, COLORADO · ALpine 5-7925

April 4, 1958

REFER TO	ACTION	NOTED	DATE
Mac			4/7
el			
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Whitney			
AO			
File			
ANSWERED			

Mr. A. E. Weissenborn,
Executive Officer,
DMEA Field Team Region I
So. 157 Howard Street
Spokane 4, Washington

Subject: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Weissenborn:

Thank you very much for your letter of March 31, which was written at the request of Mr. C. M. Hauptman to lay the necessary ground work for disbursing royalty payments to DMEA.

The customary procedure which is followed in our disbursing department is the execution and submission of a division of payment order, which authorises us to make the necessary disbursements for the mine owner. Today we are sending such a form to Mr. Hauptman for execution and return. We hope it will be here before the first lot settlement is ready.

There were two things in your letter which caused some concern. The calculation of the sliding scale royalty is a clerical burden we would not wish to assume. It appears however, that although the contract provides for a sliding scale royalty from 1½% to 5%, depending on the value per ton of the ore sold, the probable rate which will apply is 5%. If Mr. Hauptman is willing to designate it as a flat percentage, it would be greatly appreciated.

The second item in your letter which causes some difficulty is the request for three copies of each settlement sheet. The procedure which we have followed with other producers authorizing DMEA royalty payments in this Region II is to provide the standard 5% on the gross royalty

RECEIVED

APR 7 1958

check together with one carbon copy of the settlement statement. This is sent directly to the executive officer. The reason that this procedure was adopted is that our settlement statement which now consists of an eight part snap-out form provides only two copies for the shipper, the original and the eighth copy. Rather than getting into the reproduction business, we have requested and obtained permission on past similar cases to submit just the one copy of settlement statement with the royalty check. We hope this procedure can be acceptable to you and to Mr. Hauptman.

This is okay - if it is reproducible we would probably get the 8th copy. Eric.

Very truly yours,

T. J. Vogenthaler,
Manager, Administrative Division

tjv/dkj

cc: C. M. Hauptman
Midland Mining Co.
207 Hedden Bldg.
Billings, Montana

G. H. Bryant
A. W. Runge

RECEIVED
APR 7 1958
U.S.G.S.
SPOKANE, WASH

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

March 12, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED APR 10 1958
DATE | INITIALS | CODE

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited March 7, accompanied by Mr. C. M. Hauptman, Operator. The previous visit was on February 7.

During the interim the XCN has been advanced 26 feet for a total length of 165 feet from the portal. Rotary drill hole SA-13 was intersected at the left side of the XCN at 160 feet. A doghole raise has been driven on the hole to a height of 19 feet above the sill; the cross-section at 15 feet is 6'x5'.

The XCN has been timbered (8x8 squared pieces and 3-inch back lagging) with standard drift sets for a linear distance of 159 feet from the portal. At the last set of timber the cross section is 6.5x7.5 clear of timber.

The crosscut floor has been leveled and track laid from 6 feet near the face to a small loading bin erected about 150 feet beyond the portal; the bin has a capacity of 3-5 truckloads.

A 10-lb. test sample of the material at the face was sent to the buying station at Edgemont, S.D. for amenability testing by the process to be used at the Riverton, Wyoming custom mill. The sample assayed 1.13% U_3O_8 and 1.0% lime and is amenable to the process. The buying station will accept about 50 tons a month from the Operator and negotiations for a contract are pending. The buying station at present is allocating 2,000 tons a month from shippers.

There was no production from the project during the interim.

The status of the contract is:

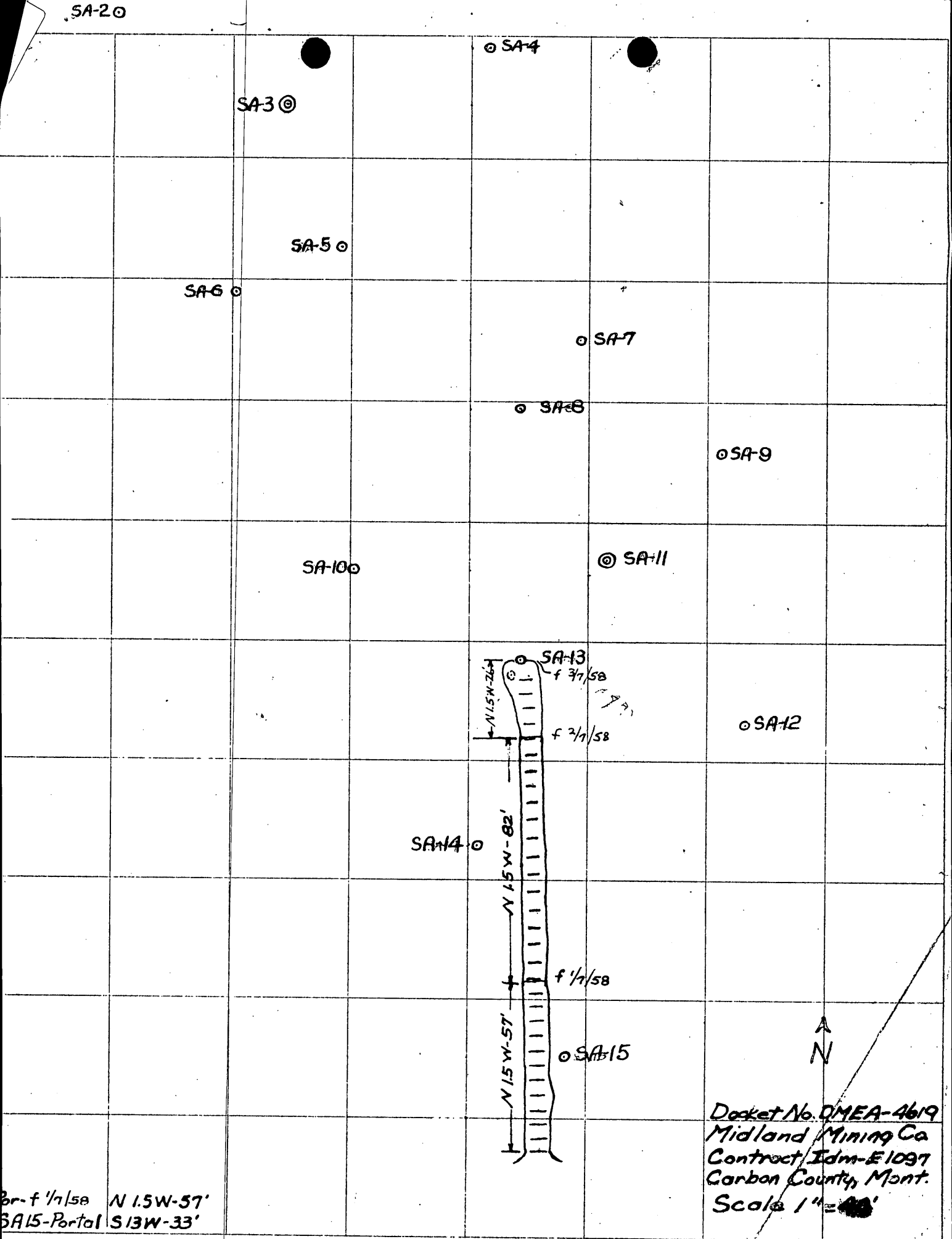
Date of contract: June 3, 1957
Termination date: August 1, 1958
Contract amount: $27,008.00
Amount spent: 14,265.30 (thru Jan. 1958)

	Authorized	Advance	Completed	Vouchered Jan. '58
Stage I				
Bulldoze drill sites	80 hrs.		80 hrs.	80 hrs.
Drilling (100' holes)	2000 ft.		2058 ft.	2000 ft.
" (200' holes)	500 ft.		410 ft.	410 ft.
Moving drill & standby	33 hrs.		33 hrs.	33 hrs.
Chemical analysis	25 samples		25 samples	25 samples
Stage II				
Drilling (100' holes)	1000 ft.		104 ft.	104 ft.
Crosscutting	400 ft.	26 ft.	165 ft. *	120 ft.
Chemical analysis	23 samples		3 samples	3 samples

*Maximum allowable from portal to hole SA-13 is 120 feet.

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher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N 1.5 W-26'
f 3/7/58
SA-14
N 1.5 W-82'
f 1/7/58
N 1.5 W-57'
SA-15
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Docket No. OMEA-4619
Midland Mining Co
Contract Idm-E1097
Carbon County, Mont.
Scale 1" = [redacted]'
Por-f 1/7/58 N 1.5W-57'
SA15-Portal S 13W-33'
"ALBANENE" No. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.

OFFICIAL FILE COPY
DMEA
RECEIVED APR 10 1958

DATE	INITIALS	CODE

So. 157 Howard Street
Spokane 4, Washington

March 31, 1958

4/3
4/3
4/4 ~~Monday~~

Fremont Minerals, Inc.
507 Farmers Union Building
Denver 3, Colorado

Attention: Mr. T. J. Vogenthaler

Re: Docket No. DMEA-4019 (Uranium)
Midland Mining Company
Sandra Group of Claims
Carbon County, Montana
Contract No. Idm-51097

Gentlemen:

Mr. C. M. Hauptman, president of Midland Mining Company, has asked us to send you "the necessary papers for issuing a division order to their disbursing department authorizing payment of the 5 percent royalty to the Government."

This is to advise you that the Defense Minerals Exploration Administration has a contract with Midland Mining Company whereby funds paid by the Government are to be repaid from royalties on the sale of any ore mined on the property defined in the contract. A thermofax copy of the pertinent part of the DMEA contract (Form MF-200) with Midland Mining Company is enclosed. The percentage of royalty due ranges from 1½ to 5 percent depending on the value per ton of the ore sold and the method of calculating it is explained in detail in Article 8 of the contract form.

Royalty checks should be payable to Defense Minerals Exploration Administration and mailed to A. E. Weissenborn, Executive Officer, DMEA, Field Team, Region I, South 157 Howard Street, Spokane 4, Washington. Three copies of each settlement sheet covered by any one check should accompany the royalty payment.

Please advise us if you require any further information.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosure

cc: Mr. C. M. Hauptman
Midland Mining Co.
207 Hedden Bldg.
Billings, Montana

DMEA (3)
USBM (2)
USBM (AD)
Prinz

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

February 17, 1958

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MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited February 7, accompanied by Mr. Leo Kowalczyk, the Operator's project boss. The previous visit was on January 7.

During the interim the XCN, to intersect rotary drill hole SA-13, has been advanced 82 feet for a total length of 139 feet from the portal (first set of drift timber). The Government and the Operator mutually agreed to limit the Government's participation to 120 feet of crosscutting to reach the vicinity of hole SA-13.

The XCN has been timbered (8x8 squared pieces and 3-inch back lagging) with standard drift sets for a linear distance of 133 feet from the portal. At the last set of timber the cross section is 6.4 x 7.3 clear of timber.

The walls and the back of the crosscut as well as the face were checked by a Geiger counter, but only background count was detected, except at two places, 85 feet and 112 feet in from the portal. The first, at 85 feet, was a 6- to 12-inch mud slip striking about N. 32° W. and dipping NE. The second, at 112 feet, was a small vuggy area. Both of these locations gave a much higher than background count, the second higher than the first. Samples were taken from both walls in the two areas and were taken to Butte where a Geiger counter check showed that both samples registered below twice background count. A chemical assay was not justified.

The intersection of the XCN and hole SA-13 is now about 26 feet beyond the present face or 165 feet from the portal.

There was no production from the project during the interim.

The status of the contract is as follows:

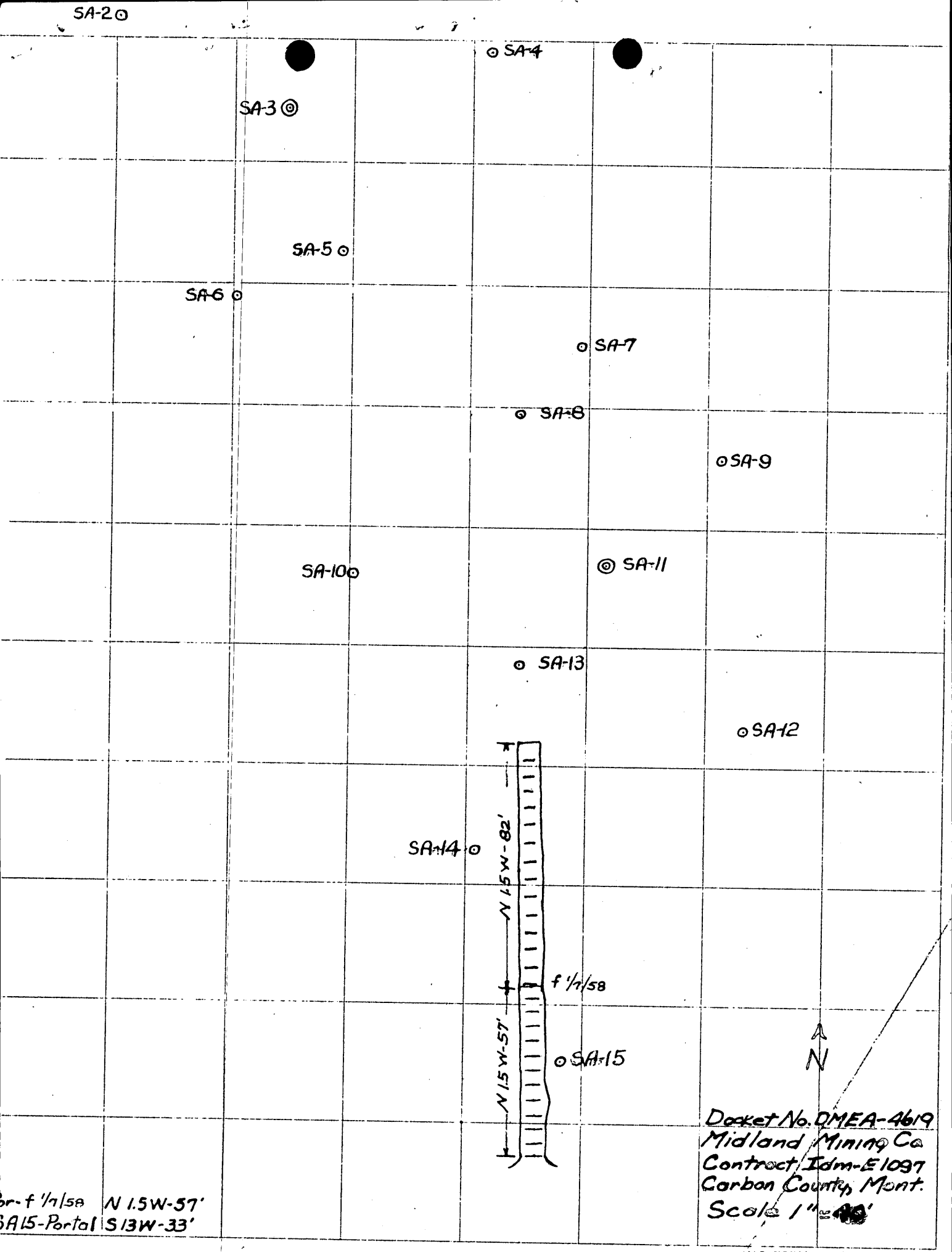
Date of contract: June 3, 1957
Termination date: August 1, 1958
Amount of contract: $27,008.00
Amount spent: 12,265.80 (thru Dec.)

Stage I	Authorized	Advance	Completed	Vouchered Dec. 57
Bulldoze drill sites	80 hrs.		80 hrs.	80 hrs.
Drilling (100' holes)	2000 ft.		2058 ft.	2000 ft.
Drilling (200' holes)	500 ft.		410 ft.	410 ft.
Moving drill & standby	33 hrs.		33 hrs.	33 hrs.
Chemical analysis	25 samples		25 samples	25 samples
Stage II				
Drilling (100' holes)	1000 feet		104 feet	104 feet
Crosscutting	400 feet	82 feet	139 feet *	

*Maximum allowable from portal to hole SA-13 is 120 feet.

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher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SA-15
N 1.5 W - 82'
N 1.5 W - 57'
f 1/7/58
N
Docket No. DMEA-4619
Midland Mining Co.
Contract Idm-E 1097
Carbon County, Mont.
Scale 1" = 40'
or-f 1/7/58 N 1.5 W-57'
SA15-Portal S 13 W-33'
"ALBANENE" No. 196M K&E CO., N.Y.

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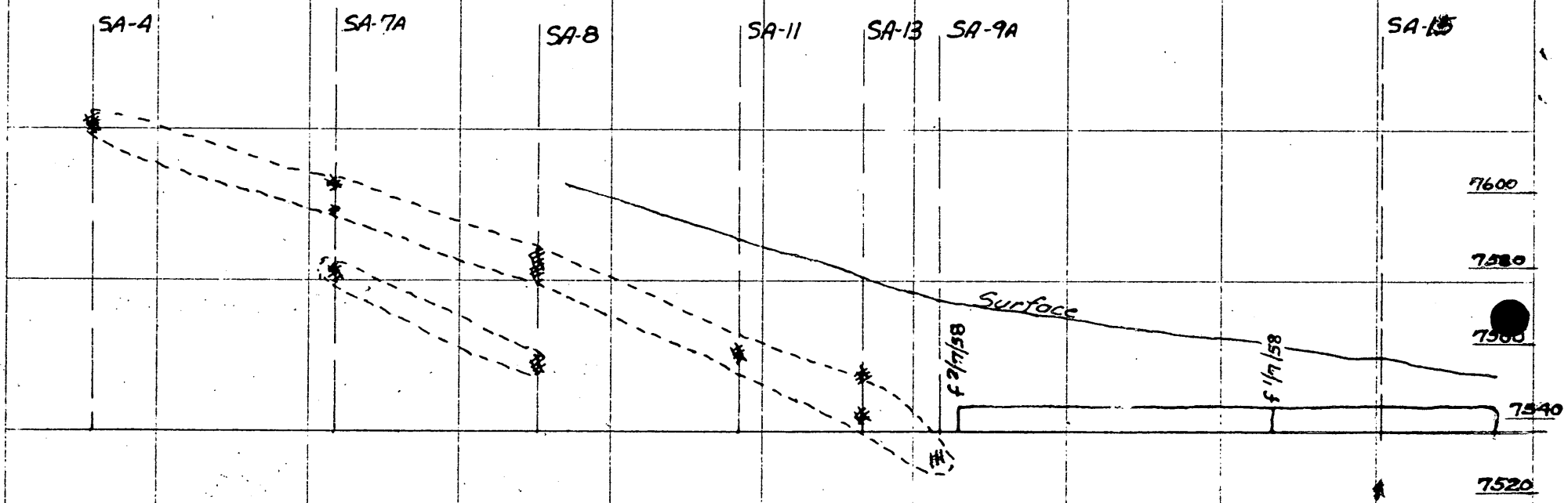

Docket No. DMEA-4619
Midland Mining Co
Contract Idm-E1097
Carbon County Mont.
Scale 1" = 40'

"ALBANENE" NO. 1000 K&E CO., N.Y.
REG. U.S. PAT. OFF.

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RECEIVED MAR 6 1958

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DMEA
RECEIVED 6 1958
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

February 18, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: William C. Prinz, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4619 (Uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The property was examined February 14, 1958, accompanied by C. M. Hauptman and George Guay, Operators. The crosscut north has intersected hole SA-13 and a raise has been driven a short distance upward along the hole. The sill of the crosscut is 46 feet below the collar of hole SA-13 or at an altitude of 7,533 feet; the back of the raise is 27 feet below the collar or at an altitude of 7,552 feet. The entire zone of anomalous radioactivity found in the drill hole has been cut.

The postulated south-dipping zone of anomalous radioactivity apparently does not exist, at least not at hole SA-13. The high radioactivity in this hole is due to uraniferous lenses or pods found along a northwest-striking and steeply(?) northeast-dipping zone which is probably a solution channel, joint, or shear in cave debris. These lenses are rich in tyuyamunite, but they are separated by barren ground, and are too small to constitute ore. Hole SA-13 cut one of these lenses, and this is the source of the anomalous radioactivity found here. The hole also passed within 3 feet of a lens in the floor of the crosscut which gave readings beyond the least sensitive scale of the Geiger counter, but no trace of this lens was picked up when the hole was probed.

Assays of four samples from the area around hole SA-13 are:

Sample No.	Width (inches)	% U_3O_8 (chem.)
829	6	1.25
830	12	1.01
831	5	0.095
832	Grab	0.049

Sample 829 is from the lens intersected in hole SA-13 about 31 feet below the collar. Chip samples from this interval taken during drilling assayed 0.36 percent U_3O_8. Sample 830 is from a high-grade lens exposed in the floor of the crosscut 3 feet southeast of hole SA-13, and sample 831 is from a low-grade portion of the northwest-striking zone which includes the high-grade pods. Sample 832 is a grab sample of the muck from the raise area.

Throughout the Pryor Mountain, Montana and Little Mountain, Wyoming district, the ore deposits are generally found in the bottoms of the caves, and most geologists who have examined the area have concluded that the ore-bearing solutions moved downward through the caves. The end of the crosscut north near hole SA-13 is in cave debris above the cave bottom, and the northwest-striking, uranium-bearing structure found here may have served as a channel for downward-moving ore solutions. Therefore, this structure should be followed downward to the bottom of the cave which seems to be the most favorable locality for an ore body. The Operator proposes to follow this structure by driving an inclined slusher drift downward from near the end of the crosscut north. Since this slusher drift will probably be too steep to be defined as a normal "drift", Amendment No. 4, executed by the Acting Executive Officer, DMEA Field Team, Region I, on February 17, 1958, permits winzing along with crosscutting and drifting at the crosscutting and drifting unit cost. The Field Team in its letter of February 18, 1958, authorized the Operator to follow this structure downward to the bottom of the cave.

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Prinz

March 6, 1958

Memorandum

To: Hazel Berry, Operating Committee

From: Irene Z. Mainster, Div. of Rare & Misc. Metals

Subject: Clearance for Amendment No. 4
Docket No. DMEA-4619
Contract No. Idm-E1097
Midland Mining Company

Mr. Murphy has reviewed and approved the above amendment, dated February 17, 1958, 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

1201 N. Division St.
Spokane 2, Washington

February 28, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 3 1958

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Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Selfridge:

Enclosed are the Government and Audit copies of Amendment No. 4 to the contract. Other copies of the amendment have already been distributed.

Sincerely yours,

Wing G. Agnew
Acting Executive Officer
DMEA Field Team, Region I

Enclosures

cc: USGS (2)
USBM (AD)

1201 N. Division St.
Spokane 2, Washington

February 18, 1958

2/24 C 220
2/24 800

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-21097

Dear Mr. Hauptman:

Enclosed are the original and four copies of proposed Amendment No. 4 signed by the Acting Executive Officer, Field Team, Region I, for the Government. If you find the amendment meets with your approval please sign all copies, retain the one marked for the Operator, and return the others to this office. If any part of the amendment does not meet with your approval the original and all copies should be returned to this office with your comments.

After Amendment No. 4 has been executed, you are authorized to sink a winze on the mineralized structure found near hole 24-13 to the bottom of the cave.

By Field Team, Region I

Wing G. Agnew
Acting Executive Officer
U. S. Bureau of Mines

D. R. MacLaren, Acting Member
U. S. Geological Survey

Enclosure

cc: DMEA (2)
USGS (2)
USBM (AD)

Information copy

DMEA
RECEIVED
DATE

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 4

It is agreed this 17th day of February, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Midland Mining Company, that Exploration Project Contract No. 14m-X1097 (Docket No. DMEA-4619), dated June 3, 1957, as amended, is further amended, effective February 17, 1958, as follows:

1. In Exhibit "A", under Description of the Work, General Provisions, after the word "crosscutting," add the word "winzing," and after the word "crosscuts," add the word "winzes."

2. In Exhibit "A", under Description of the Work, Stage II, first paragraph, after the word "crosscutting," add the words "drifting and/or winzing."

3. In Amendment No. 2, item 3, Estimated Costs of the Project, Stage II, under Fixed Unit Costs, delete

"Crosscutting 400 feet at
$31.50/ft. or, $12,600.00"

and add

"Crosscutting, drifting, and/or
winzing 400 feet at
$31.50/ft., or $12,600.00"

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, nor the agreed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Wing G. Agnew
Acting Executive Officer
DMEA Field Team, Region I

MIDLAND MINING COMPANY

_____

Title _____

Exploration Project Contract No. 1Am-E1097
Midland Mining Company
Carbon County, Montana

Justification of Amendment No. 4

The end of the drift at hole 3A-13 is in cave material and a northwest-striking and northeast-dipping structure, possibly a solution channel, cuts across the end of the drift near this drill hole. This structure contains a few small lenses of high-grade material and it possibly served as a channel-way for downward moving uranium-bearing solutions. Since most of the ore deposits in the district are found in the bottoms of the caves, it is advisable to follow the mineralized structure downward to the bottom of the cave. The Operator hopes to avoid using a true winze but instead plans to go down with an inclined "slusher drift," probably at too steep an angle to be defined as a normal "drift."

William C. Prinz

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

1201 N. Division Street
Spokane 2, Washington

January 16, 1958

DMEA
RECEIVED FEB 10 1958

DATE	INITIALS	CODE
2-10	C	220
11	[illegible]	100
11	[illegible]	110
2/4	[illegible]	800
	[illegible]	750

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4619 (uranium), Midland Mining Co., Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited January 7, accompanied by Messrs. W. C. Prinz, U. S. Geological Survey, and C. M. Hauptman, G. Guaye and H. Guaye, Operators. The previous visit was on October 4, 1957.

During the period June 25-October 4, 1957, DMEA work consisted of the preparation of drill hole sites and pneumatic drilling at 21 hole locations, completing in Stage I 2058 feet (auth. 2000 feet 0-100 ft. holes) and 410 feet (auth. 500 feet 100-200 ft. holes), and in Stage II 104 feet (auth. 1000 feet 0-100 ft. holes).

DMEA work was inactive from October 4-December 1957 while the Operator prepared a program for the underground work in Stage II; the program was submitted to the Field Team and a letter of approval and authority to proceed was written to the Operator November 19, 1957.

During the first week of December 1957, crosscutting was started near drill hole SA-15 to reach the vicinity of SA-13 at the level of the lower radioactivity anomaly found in that hole. By January 7 the Operator had advanced the crosscut 57 feet from the portal. The crosscut is timbered from the portal 53 feet (11 drift sets) using 8x8 squared pieces and 3-inch back lagging; the cross-section in clear of timber is 5.5 ft. x 7.5 ft. At present mucking is by a scraper and mine hoist operated as a slusher; the hoist is housed about 50 feet outside the portal. Non-DMEA work consisted of the erection of a compressor-tool house (20 ft. x 10 ft. x 8 ft.) and slusher house (7 ft. x 7 ft. x 6 ft.).

Rocks, taken from the muck pile, show yellow uranium mineralization as "paint coating." The mineralization is also found in the face of the crosscut.

The termination date of the contract is February 1, 1958 and the Operator will not be able to complete the DMEA work by that date. It is recommended that the termination date be extended six months. Amendment No. 3, 1/21/58

Status of the contract is:

Contract date: June 3, 1957
Termination date: February 1, 1958
Contract amount: $27,008.00
Amount spent: 9,270.30 (thru Oct.)

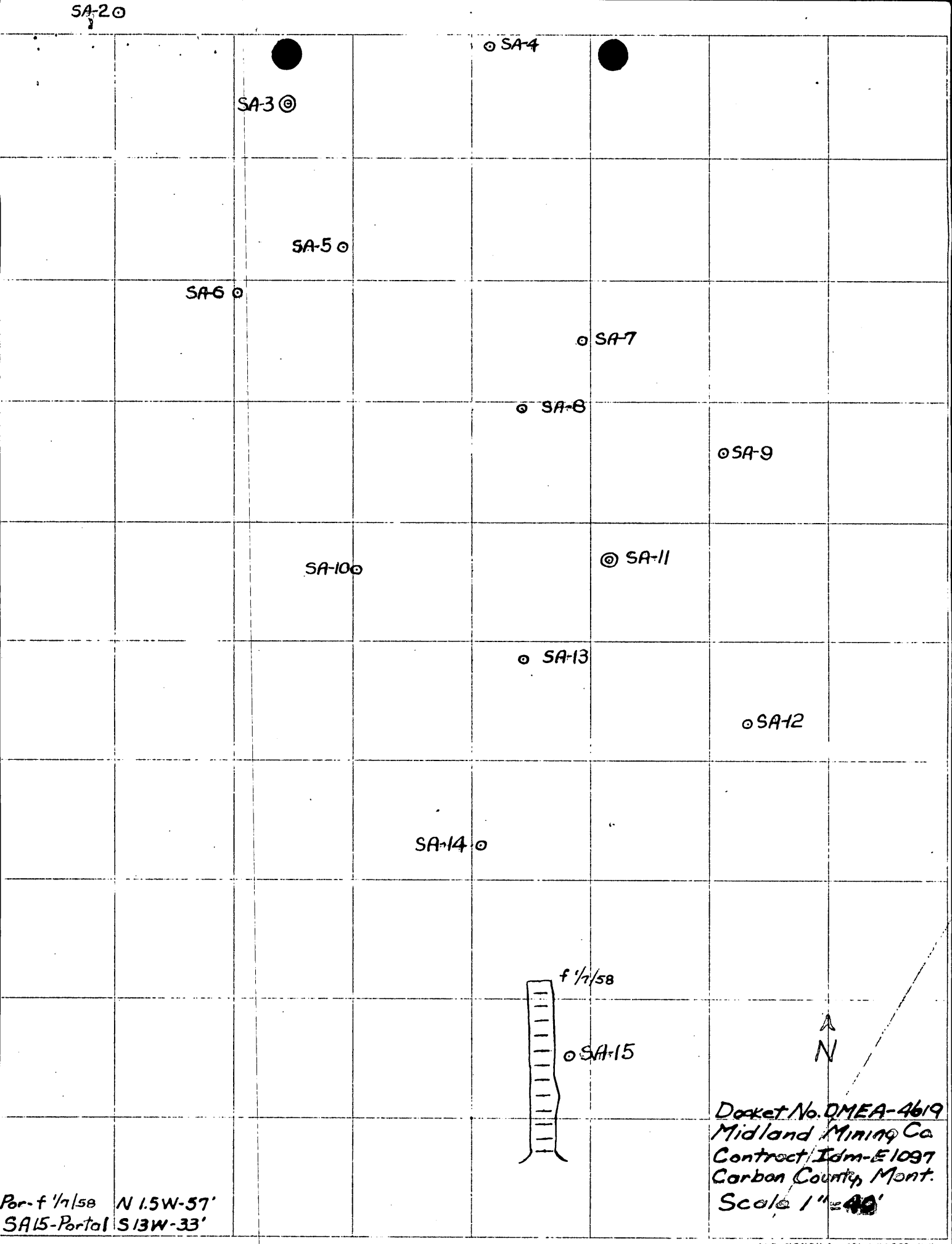
Stage I	Authorized	Advance	Completed	Vouchered Oct. '57
Bulldoze drill sites	80 hrs.		80 hrs.	80 hrs.
Drilling (100' holes)	2000 ft.		2058 ft.	2000 ft.
" (200' holes)	500 ft.		410 ft.	410 ft.
Moving drill & standby	33 hrs.		33 hrs.	33 hrs.
Chemical analysis	25 samples		25	25
Stage II				
Drilling (100' holes)	1000 ft.		104 ft.	104 ft.
Crosscutting	400 ft.	57 ft.	57 ft.	
Chemical analysis	23 samples			

Production Summary

Period	Tons	Grade
June 3, 1957-January 7, 1958	0	

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher



"ALBANENE" No. 1551A K&E CO., N.Y.
REG. U.S. PAT. OFF.

RECEIVE
CODE

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

January 15, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: William C. Prinz, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4619 (Uranium), Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The property was examined on January 7, 1958 accompanied by John A. Bowsher, Mining Engineer, U. S. Bureau of Mines, C. M. Hauptman, President, Midland Mining Company, and George and Harvey Guay, stockholders. Since my last inspection, the drilling program has been completed (see attached map, logs included with the Operator's monthly narrative reports, and my memorandum to the files dated October 23, 1957). This drilling found a south dipping zone of anomalous radioactivity from about 20 to 50 feet below the surface, and a second weaker zone about 90 feet below the surface. The shallower zone may actually be made up of 2 or 3 separate zones at slightly different depths. Assays of chip samples from the holes are all under 0.06 percent U_3O_8 except for a 4-foot interval in hole SA-13 which assayed 0.13 to 0.36 percent U_3O_8. In view of the erratic nature of the deposits in this area, the results of the drilling were encouraging enough to warrant some Stage II underground work. It was decided that the primary target of this work should be the best showing, i.e. that found in hole SA-13. The Operator's proposal to reach this objective by trenching northward for 85 feet from a point about 45 feet west of hole SA-17 and crosscutting for 150 feet from the end of this trench was not favorably considered by the Field Team who suggested sinking a shaft on hole SA-13 as an alternative. At an office conference in Spokane on November 18, 1957, the Operator noted certain features which made shaft sinking impractical, and stated that as a result of recent bulldozing work around his proposed portal site, he thought he could bulldoze a trench far enough north so that only about 120 feet of crosscutting would be necessary. A compromise was reached whereby the Government would participate in 120 feet of crosscutting to reach hole SA-13 with the preparation of the portal site to be at the Operator's own expense (see Field Team letter to the Operator dated November 19, 1957).

Underground work has been started, the adit portal being located 33 feet south-southwest of, and 19½ feet below, hole SA-15. The Operator was unable to trench as far northward as he had hoped and has about 165 feet of crosscutting to reach hole SA-13. The extra 45 feet will be at the Operator's expense. The adit is being driven northward toward hole SA-4 and at the time of the inspection had been advanced 57 feet. The adit is entirely in irregular silty cave fill material consisting mainly of light gray, maroon, or yellow brown calcareous silt with numerous small nodules of dark gray chert. Uranium mineralization is absent along the adit except at the breast where a small amount of yellow tyuyamunite stain is found.

The Operator will notify us when the adit has reached hole SA-13 so that an inspection can be arranged and a future course of action decided.

The Operator stated that he had obtained a lease on the adjacent Pearl claim from the Pryor Mining Company, and that he was considering asking for DMEA assistance to explore this claim. However, some disagreement apparently exists among the Pryor Mining Company stockholders and the lease is being contested by some of them.

William C. Prinz

Enclosure

cc: DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Prinz

January 31, 1958

Memorandum

To: Hazel Berry, Operating Committee

From: Irene Z. Mainster
Division of Rare and Miscellaneous Metals

Subject: Clearance for Amendment No. 3

Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Mr. Murphy has reviewed and approved Amendment No. 3, dated January 21, 1958, to the above contract, and has indicated that no further review of the amendment is required by the Legal Division.

/s/ Irene Z. Mainster

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

January 27, 1958

OPERATIONS COMM
DMEA
RECEIVED JAN 30 1958

DATE	INITIALS	CODE
1/30	C	220
	[illegible]	130
11	[illegible]	700

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Selfridge;

Enclosed are the Government and Audit copies of Amendment No. 3 to the contract. Other copies of the amendment have already been distributed.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
USBM (AD)
Prinz

So. 157 Howard Street
Spokane 4, Washington

January 21, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 27 1958
CODE
1/27 C 220
1/28 440 800
MM 700

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

Enclosed are an original and four copies of a proposed Amendment No. 3 to the contract, which was prepared by this office and signed by the Executive Officer, extending the completion period of your contract from February 1, 1958 to August 1, 1958.

If the amendment meets with your approval, would you please sign all copies, retain the one marked Operator's copy and return the rest to this office. If the amendment does not meet with your approval, would you please return all copies, unsigned, with your comments.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: DMEA (2) w/incl. by 2 copies,
USBM (2)
USBM (AD)
Prinz

Information

Extra copy

EXTRA COPY
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RECEIVED
DATE | CODE

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 3

It is agreed this 21st day of January, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Midland Mining Company that Exploration Project Contract No. Idm-X1097 (Docket No. DMEA-4619), dated June 3, 1957, as amended, is further amended, effective February 1, 1958, as follows:

1. In Article 3, the period for completion of the work is extended to August 1, 1958.

2. In Article 8(b) of the contract the period for payment of royalty to the Government is changed from ten (10) years from the date of the contract 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 total amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By A. E. Weissenborn
A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I

MIDLAND MINING COMPANY

By _____

Title _____

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Long	
	Dwyer	
1/16	Thurkby	700
1/16	Ellis	700
"	Johnson	110
"	Mittendorf	100
1/17	C	220
		700

JAN 17 1958

Bert W. Kronmiller, Esq.
P. O. Box 458
Hardin, Montana

Re: Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Kronmiller:

Your letter of December 20, 1957, with attachments relating to an objection filed by a group of stockholders of the Pryor Mining Company to a proposed lease of mining claims between that company and the Midland Mining Company, has been referred to us by the Atomic Energy Commission.

We appreciate the information very much and wish to thank you for keeping the Government informed.

The Defense Minerals Exploration Administration entered into a contract with the Midland Mining Company on June 3, 1957, to assist the company in exploring for uranium ore deposits in the following lode mining claims:

Sandra	Vi
Myrna	Blonde Edna
Wanda	

All of the claims are located in unsurveyed sec. 33, T. 8 S., R. 27 E., M.P.M., Carbon County, Montana, and all were leased by the Pryor Mining Company to Midland by lease dated October 19, 1956, recorded in Book 15, page 322, of Lease Records of Carbon County, Montana.

The present conflict does not appear to affect the above-identified claims, and consequently does not at this time involve the Government. However, we again thank you for the information and will appreciate being advised of any further actions which you think may affect the interests of the United States.

CC: Reg. I (2)
Chron
Pending

RWLong:md
1/16/58

CC: DMEA docket
Admin Read file
Operating com.
Mr. Ellis
R. P. Dwyer
R.W. Long

Sincerely yours,

C. O. Mittendorf (for)

Administrator

8623

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

IN REPLY REFER TO:

RM:CWT

ORIGINAL FILE COPY
DMEA
RECEIVED JAN 10 1958

DATE	INITIAL	CODE
1/10	C	220
1/13	Murphy	700

January 8, 1958

4619

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

Dear Mr. Mittendorf:

Enclosed is a letter dated December 20, 1957 and attachments received from Mr. Bert W. Kronmiller, Attorney, Hardin, Montana, together with a copy of our acknowledgment.

This letter is being referred to you since it apparently pertains to an application for financial assistance being considered by Defense Minerals Exploration Administration.

Sincerely yours,

R. L. Faulkner

R. L. Faulkner
Deputy Director
Division of Raw Materials

Enclosures:
As stated above

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

IN REPLY REFER TO:

RM:CWT

EXTRA COPY
DMEA
RECEIVED [illegible] 1958

DATE	INITIALS	CODE

January 8, 1958

Mr. Bert W. Kronmiller
Attorney at Law
P. O. Box 458
Hardin, Montana

Dear Mr. Kronmiller:

This will acknowledge your letter of December 20, 1957, transmitting copies of documents pertaining to an objection filed by a group of stockholders of Fryor Mining Company to a proposed lease agreement between that company and Midland Mining Company covering certain uranium mining claims located in Carbon County, Montana.

Since the Atomic Energy Commission has no interest in the claims in question it is our thought that you may have intended to direct your letter to Defense Minerals Exploration Administration. We have, therefore, forwarded the letter and attachments to Mr. C. O. Mittendorf, Administrator, Defense Minerals Exploration Administration, U. S. Department of the Interior, Washington, D. C.

Sincerely yours,

R. L. Faulkner
Deputy Director
Division of Raw Materials

LAW OFFICES
BERT W. KRONMILLER
KRONMILLER BUILDING
HARDIN, MONTANA

BERT W. KRONMILLER
DOUGLAS Y. FREEMAN

P. O. BOX 458
TELEPHONE 197

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 10 1958

DATE	INITIALS	CODE

December 20, 1957

Atomic Energy Commission,
19th Street and Constitution Avenue,
Washington, D. C.

Dear Sir:

Several of the stockholders of the Pryor Mining Co., have requested that I write to you relative to certain uranium claims that they now hold in the Pryor Mountains of Carbon County, Montana. Recently, certain members of the Board of Directors of Pryor Mining Co., who are also members of the Board of Directors of the Midland Mining Co. adopted a Resolution leasing certain claims to the Midland Mining Co. This was done over the protest of the other stockholders of the Pryor Mining Co., the basis of the objection being fully set forth in the enclosed Notice.

In as much as the United States is contemplating a D.M.E.A. Loan to the Midland Mining Co., based upon this alleged lease, the other stockholders of the Pryor Mining Co. felt it to be their duty to notify you of the objection. It appears that it will ultimately conclude ~~any~~ law suit to determine the legal rights of the party and if you desire any further information, please contact me.

Very truly yours,

BERT W. KRONMILLER

BY: Douglas Y. Freeman

DYF/jim
Enc.

09241

N O T I C E

Midland Mining Company,
217 London Building,
[illegible], Montana.

YOU ARE HEREBY NOTIFIED by the undersigned, Ben Halgeland of Bridger, Montana, that on the 16th day of November, 1957, at a meeting of the Board of Directors of Pryor Mining Company, a corporation, action was taken by the Pryor Mining Company to execute and deliver a certain Lease and Agreement, a copy of said Lease and Agreement being hereto annexed, marked Exhibit "A", and by reference hereby made a part of this Notice.

That prior to the action taken by the Board of Directors of Pryor Mining Company, and after the meeting of the Pryor Mining Company had been called to order, a written Notice of Objection was filed and served upon each of the members of the Board of Directors present at said meeting, to-wit, George K. Guay, Leo Kres, Homer Guay and Harvey Guay. At the time of the service of the Notice of Objection, as aforesaid, the Notice of Objection was then read at the meeting to all of the persons present at said meeting. A copy of said Notice of Objection is hereto attached, marked Exhibit "B", and hereby made a part of this Notice.

Notwithstanding the foregoing Notice of Objection, the said George K. Guay, Leo Kres, Homer Guay and Harvey Guay, proceeded with the deliberation and consideration of the proposed Lease and Agreement, and notwithstanding the objection that was made by the undersigned, moved to enter into the proposed Lease and Agreement set forth as Exhibit "A" and attached to said Notice of Special Meeting of Directors of Pryor Mining Company.

The undersigned moved that notice of the objection to said action of the Board of Directors of Pryor Mining Company be given to the Midland Mining Company, but that the said George K. Guay, Leo Kres, Homer Guay and Harvey Guay refused to do so.

That the basis of said objection to the execution of said lease and agreement with the Midland Mining Company, is fully set forth in the Notice of Objection, a copy of which is attached hereto and marked Exhibit "F", as aforesaid.

Therefore, you are notified that said action of the Board of Directors of the Pryor Mining Company, at the Special Meeting held in the law offices of William G. Mount, attorney at law, in Billings, Montana, on Saturday, the 16th day of November, 1957, at 10:00 o'clock A. M.was done so notwithstanding the protest and written objection of the undersigned. The said action of George E. Guay, Lee Ross, Homer Guay and Harvey Guay was therefore illegal, void and of no force or effect, and that, such action taken by said Board of Directors is now, and will be further contested. That all of the objections as set forth in the Notice of Objection marked Exhibit "F", and attached hereto, were fully explained to the said George E. Guay, Lee Ross, Homer Guay and Harvey Guay, and notice was given at said meeting to the said George E. Guay, Lee Ross, Homer Guay and Harvey Guay, as stockholders, directors, and officers of Midland Mining Company of the objections by the undersigned of the action of the Board of Directors of the Pryor Mining Company.

The minutes of the meeting of Pryor Mining Company held on November 16, 1957, as aforesaid, will show that the necessary quorum of disinterested officers of the Board of Directors voting upon said Lease and Agreement, were not present at said meeting.

DATED this 19th day of November, A. D. 1957.

Ben Helgeland
Member of the Board of Directors, Stockholder, and Officer of Pryor Mining Company.

N O T I C E

Comes now, Ben Helgeland, a stockholder of Pryor Mining Company, a corporation, and a duly elected, qualified, and acting member of the Board of Directors of Pryor Mining Company, a corporation, and hereby objects to a meeting of the Board of Directors of said corporation noticed and called by George E. Guay, President of said corporation, to be held on Saturday, the 16th day of November, 1957, at 10:00 o'clock in the forenoon of said day, for the purpose of considering and passing upon the question of:

1. Whether or not Pryor Mining Company should lease to Midland Mining Company the Pearl Lode Mining Claim, the East 900 feet of the Bud Lode Mining Claim, the North 600 feet of the Mint Lode Mining Claim, and the terms of such lease, if any, for the granting to Midland Mining Company of an easement of right-of-way for ingress and egress to and from said lode mining claims and for the allowance of certain surface rights on the Rose Lode Mining Claim as a storage and camp ground for Midland Mining Company operations.

That said objection to the holding of the said Special Meeting of Directors of Pryor Mining Company at said time and place for the purpose set forth herein and set forth in paragraph (1) of said Notice of Special Meeting of Directors of Pryor Mining Company, is made by the said Ben Helgeland upon the following grounds and the following reasons, to-wit:

1. That George E. Guay, Lee Eres, Homer Guay and Harvey Guay are each members of the Board of Directors of Pryor Mining Company, a corporation, and the said George E. Guay, Lee Eres, Homer Guay, and Harvey Guay are each also stockholders and members of the Board of Directors and officers of Midland Mining Company, a corporation, the corporation referred to and set forth in the Notice of Special Meeting of Directors of Pryor Mining Company, and as such stockholders, directors, and officers are directly interested in the affairs of Midland Mining Company and therefore such persons, and each such persons, have a direct and personal interest in such matters and things coming on for action and consideration before the Board of Directors of Pryor Mining Company and are therefore, disqualified to act upon the proposition of whether or not Pryor Mining Company should lease to Midland Mining Company the Pearl Lode Mining Claim,

Ben Helgeland

the east 900 feet of the Bud Lode Mining Claim, the North 600 feet of the Mint Lode Mining Claim, and the terms of such lease, if any for the granting to the Midland Mining Company, of an easement of right-of-way for ingress and egress to and from said lode mining claims and for the granting of certain surface rights on the Rose Mining Claim as a storage and camp-site for Midland Mining Company operations:

2. That said proposition and matters set forth herein, consisting of paragraph (1) of the said Notice of Special Meeting of Directors of Pryor Mining Company cannot be considered or acted upon by said George E. Guay, Leo Eres, Homer Guay, and Harvey Guay, for the reason that said members of the Board of Directors of the Pryor Mining Company are each stockholders and each members of the Board of Directors of the Midland Mining Company, a corporation, and such interests of each of said Directors are conflicting, and therefore, each of said directors cannot deliberate in the matters which are set forth in paragraph (1) of said Notice of Special Meeting of Directors of Pryor Mining Company.

3. That said propositions and matters set forth herein, consisting of paragraph (1) of said Notice of Special Meeting of Directors of the Pryor Mining Company cannot be considered and acted upon by the Board of Directors of Pryor Mining Company for the reason that a proper quorum is not present and any action taken by the purported quorum of the said Board of Directors is illegal, void and of no force or effect.

4. That the Midland Mining Company is engaged in the same enterprise and business as the Pryor Mining Company and that the leasing of the mining claims as set forth in paragraph (1) of said notice is a transaction which may cripple and injur the business of the Pryor Mining Company, or hinder and defeat it, and that the said George E. Guay, Leo Eres, Homer Guay, and Harvey Guay as stockholders and directors of the Midland Mining Company would profit personally by the contemplated lease to the Midland Mining Company, of those certain claims that the Pryor Mining Company requires for its operation.

Ben Helgeland

3. That to allow George H. Guay, Lee Ross, Homer Guay, and Harvey Guay, as directors of the Pryor Mining Company to deliberate and to vote to lease the Pearl Lode Mining Claim, the east 900 feet of the Red Lode Mining Claim, the North 600 feet of the Mint Lode Mining Claim, to the Midland Mining Company in which said Directors are personally interested, and which proposed lease is in conflict with the interests of the Pryor Mining Company, is against public policy and in violation of the fiduciary relationship that said directors, sustain toward the Pryor Mining Company.

DATED this 16th day of November, A. D. 1957.

Ben Hilgeland

EXHIBIT A

LEASE AND AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 1957, by and between Pryor Mining Company, a Montana corporation, Party of the First Part and Midland Mining Company, a Montana corporation, Party of the Second Part;

That for and in consideration of the sum of One Dollar ($1.00) to each of the parties hereto paid by the other, receipt of which is hereby acknowledged, and in further consideration of the mutual covenants herein expressed, it is hereby agreed by and between the parties hereto as follows:

1. First party agrees to lease and let unto second party, and second party agrees to lease from first party, the following enumerated lode mining claims and fractions thereof situated in Township 8 South, Range 27 East, Montana Principal Meridian:

Pearl Lode Mining Claim
East 900 feet of Bud Lode Mining Claim
North 600 feet of the Mint Lode Mining Claim

said claims and fractions being the property of the first party hereto.

2. The term of this lease shall be for ten (10) years and as long thereafter as ores or minerals, or either of them, are produced from the aforesaid mining claims, or any of them, in commercial quantities; provided, however, that the party of the second part shall at all times fulfill its obligations hereunder.

3. Party of the first part hereby grants and lets unto party of the second part and its agents and representatives, the right of ingress and egress to and from any and all claims or property owned by first party reasonably necessary or convenient

to the proper exploration, development, mining and transportation of any minerals in and under or that may be produced and saved from the herein demised lode mining claims and fractions.

4. Furthermore, first party hereby grants and lets unto second party, the right to the use of that portion of the surface of the Rose Lode mining claim, situated in Township 8 South, Range 27 East, Montana Principal Meridian, Carbon County, Montana, reasonably necessary for use as a storage and campsite for Midland Mining Company ope ations so long as such use does not materially interfere with the operations of first party or its sucessors or assigns.

5. Second party agrees to do and perform all assessment work required to hold the said mining claims under the state and federal mining laws, and to record the affidavits annually of the performance of such work. Second party as lessee agrees to pay during the term of this lease, a royalty of 12½% of the gross proceeds of all minerals or ores extracted from the above demised premises. By "gross proceeds" is meant the proceeds from minerals or ores or concentrates shipped from the premises, and shall include any bonus payment paid, or which might be paid, by the AEC or any other purchaser of such ores, but shall not include any allowance made by such purchaser for mining development or for transportation, or in the alternative, first party may have as royalty one-half of the net profits resulting from the operation and mining upon said premises. It shall rest completely within the discretion of first party whether it shall select as a basis for royalty, 12½% of the gross proceeds or 50% of the net profit.

Second party agrees to carry on its operations herein diligently and in good efficient and miner-like manner and in accordance with accepted mining practices in the State of Montana, and agrees that all mining operations shall be carried on in a systematic, orderly and economical manner, so as to realize in so far as is practicable the full ore resources of the leased

Premises

First party, or its authorized representatives, shall at all times during the term of this lease have the right to enter upon and inspect the mine or mines and all the workings thereof on the demised premises, and to make any survey which may be deemed necessary either for the purpose of checking the amount of ores mined or for an examination of the physical condition of the property and workings.

Second party shall assume all responsibility for its operations and shall save first party harmless from damages caused by second party, its employees or contractors, to the persons or property of others, except to the persons or property of employees of the first party. Second party shall carry at its own expense, or cause to be carried, without cost to first party, Workmen's Compensation insurance on its employees who are covered by the Workmen's Compensation Law of the State of Montana, or second party shall make other arrangements for Workman's Compensation as may be permitted by such law.

Anything is this lease contained to the contrary notwithstanding, any strike act of God or other contingency which makes performance beyond the control of second party, or which delays or interferes with the performance of this agreement which is not the fault of second party shall be considered sufficient justification for delay in such performance until such cause ceases to exist; provided, however, that any such delay must be reasonably justifiable in order to excuse performance during the time of such delay. In the event the acts or performance hereunder shall not be excused by first party and shall continue for a period of thirty days or more, first party may, at its option, give notice of writing to second party stating wherein performance has not been accomplished, and second party shall have thirty days within which to cure such default, if any, and it such default be not cured within said thirty day period, first

party may, at its option, take possession of said premises immediately thereafter, and this lease shall automatically be terminated.

Commencing within thirty days after the execution of this agreement, second party agrees to furnish labor upon or for the benefit of the herein demised premises for at least 20 man-shift per month, except when inclement weather makes such performance impossible.

This lease is executed in duplicate, either counterpart of which for all purposes may be used as an original.

All notices given or required to be given under the terms of this agreement shall be writing sent by United States mail with postage prepaid addressed as follows:

Notice to first party shall be addressed to:
Pryor Mining Company
Box 63
Billings, Montana

Notice to second party shall be addressed to:
Midland Mining Company
207 Hedden Building
Billings, Montana

provided, further that in lieu of mailing, such notices may be served upon either of such parties personally.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed on the day and year first above written.

PRYOR MINING COMPANY

By_____
President

Attest:

_____
Secretary

MIDLAND MINING COMPANY

By_____
President

Attest:

_____
Secretary

STATE OF MONTANA)
) ss.
County of Yellowstone)

On this _____ day of _____, 1957, before me, the undersigned, a Notary Public for the State of Montana, personally appeared _____, known to me to be the President of Pryor Mining Company, the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same for the purposes therein set forth.

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

_____
Notary Public for the State of Montana,
Residing at Billings, Montana,
My Commission Expires _____.

STATE OF MONTANA)
) ss.
County of Yellowstone)

On this _____ day of _____, 1957, before me the undersigned, a Notary Public for the State of Montana, personally appeared _____, Known to me to be the President of Midland Mining Company, the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same for the purposes therein set forth.

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

_____
Notary Public for the State of Montana,
Residing at Billings, Montana,
My Commission expires _____.

ORIGINAL FILE COPY
DMEA
RECEIVED DEC 9 1957

DATE	INITIALS	CODE
12/9	C	220
12/9	[illegible]	800
"	~~Murphy~~	~~700~~

1201 N. Division St.
Spokane 2, Washington

December 5, 1957

Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (uranium)
Contract No. Idm-E1097
Monthly operating report for
July-October 1957

Gentlemen:

The subject operating report has been processed and forwarded to the Disbursing Officer for payment.

The deletions are explained in the attached copy of a letter to the Field Team from the Certifying Officer, Region I.

By Field Team, Region I

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USGS (2)

DMEA Field Team, Region I

December 5, 1957

DMEA Certifying Officer, Region I

Contract No. Idm-E1097
Monthly operating report for July-October 1957

The subject monthly operating report has been processed and forwarded to the Disbursing Officer for payment.

We have deleted $340.00 for 100 feet of drilling at $3.40/ft. claimed for Hole No. 17. According to the Operator's narrative dated September 25, 1957 for the period July 1-31, 1957, Hole No. 17 was scheduled for a 200-ft. hole but was not completed. The contract states, in Exhibit A, "The Government will not participate in the cost of an incomplete hole".

We have also deleted the $1200 claimed for bulldozing. The invoice received from the dozer operator did not specify the type dozer used. Upon receipt of this information from the dozer operator this item will be reinstated.

Dorothy F. Long

cc: DMEA (2)
USGS (2)

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 9 1957
DATE | REMARKS | CODE

NOV 22 1957

11/22	C	220
11/22		800
		700

xxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

November 19, 1957

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

The purpose of this letter is to place on record the agreements reached at our meeting with you in Spokane on November 1[illegible], 1957 at which the points brought out in your letter of November 11, 1957 were discussed.

It was agreed that the radioactive zones disclosed in holes SA-13, SA-11, SA-7 and other holes should be tested by further work as provided in Stage II of the contract. You have pointed out that because of the steep topography, access to the site of hole SA-13 is difficult at any time and impracticable during winter conditions without the construction of a new access road; therefore, the Field Team's suggestion of sinking a 45-foot shaft at the site of hole SA-13 does not appear feasible. The Field Team's alternate suggestion of driving an adit to hole SA-13 from an old portal site on the steep cliff east of hole SA-13 also appears unfeasible because of drifting snow, steep grades and the narrow width of the existing trail. Therefore, it was agreed that an adit would be started from near the site of hole SA-15 which would reach the vicinity of hole SA-13 at the level of the lower anomaly disclosed by that hole. It was further agreed that bulldozing an open cut to give access to the portal and other work required to prepare the portal site, would be done entirely at your expense and that the Government's participation would be limited to 120 feet of crosscutting to reach the vicinity of hole SA-13; any additional crosscutting, if required, to be at your expense.

Additional work, if any, required to explore the radioactive zone will be mutually agreed upon after the site of hole SA-13 has been reached.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2) w/2 copies of incoming
USBM (2)
USBM (AD)
Prinz

MIDLAND MINING COMPANY

1957

DATE

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Special Del. AA
NOV 1957

[illegible] that you list relating to our proposed tunnel as compared with [illegible] shaft in the site of SA-13 are, under the terms of the contract, [illegible] correct. However, I believe there are [illegible] circumstances which should be considered. First, as concerns the tunnel; the first item, the bulldozer trench to the proposed portal site would be quite inexpensive. As you will note from the cross section , the grade from the center of the road to the proposed portal site is quite gentle. The ground is soft and I believe that 8 hours of dozer work on this trench would be sufficient. The proposed portal is as close to the location of SA-13 as is our original portal, which is practically inaccessible in the winter. The proposed portal would be accessible all winter and we have the necessary equipment to begin work immediately on the tunnel. The government's share of the tunnel is, of course, already established by the fixed unit cost of $31.50 a foot, which I believe is fairly accurate.

The shaft, however, presents a different problem. In the first place, the fixed unit cost of $47.50 per foot, plus the allowance of $540.50 for a head frame and accessories are in my estimation unreasonably low. Do not be misled; we were quite aware of this situation at the time the contract was signed. We felt, correctly or incorrectly, that we would not be doing any shaft work due to the prominent relief of the area. Also, since we are so anxious to begin work on the property, we felt we should sign the contract rather than wait for a long time and delay to get this part amended. That, I presume, was a calculated risk. My estimate for the cost of this shaft would be almost double the allowable fixed unit cost under the contract, i.e. $70 to $80 per foot and the cost of a head frame and accessories, even though it be only a timber tripod, would certainly be considerably more than $540.50. When the cost of building a new access road and shaft site on a steep hillside is added to the cost of shaft and head frame, I estimate that the cost of the total project would be on the order of $4,000 or more. Thus the differences between tunnel cost and shaft cost would be only 6 or 7 hundred dollars at most. These costs, as concerning the shaft are of course no direct concern to our contract. However, there is cause for concern in that we would have to bear the additional cost, putting a definite burden on our finances. We would also have to have a delay of a month to six weeks at least, assembling the necessary equipment for such a shaft and thereby starting work under the most adverse conditions of mid-winter.

3. If we are allowed to proceed with the work as proposed, we feel confident that we will be shipping ore within a period of one month to six weeks. We can thereby start repaying the government the share it has advanced on this project. If, however, we are compelled to embark on a project of sinking a shaft, we sincerely believe that we would not be able to start shipping for at least three months. From past experience, we know that we have about one month in which to get our mining plant in order. If we lose this time now, inclement weather may force us to shut down the entire project until Spring.

I sincerely hope that the above reasons will be sufficient to permit you to reverse your decision concerning this request. I would be most happy to come to Spokane to discuss this further with you if you feel that there may be some questions that I haven't answered.

Very truly yours,

MIDLAND MINING COMPANY

C. M. Hauptman
President

RECEIVED
Spec. Del. Airmail
NOV [illegible]

CMH/am
Enc. 2

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

So. 157 Howard Street
Spokane 4, Washington

November 18, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 2 1957

DATE	INITIALS	CODE
12/2	C	220
		700
Amends 1 & 2		

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Selfridge:

Enclosed are the Government and Audit copies of Amendment No. 1 and Amendment No. 2 to the contract. Distribution is being made in the usual manner.

As requested in your letter of November 4, 1957, Amendment No. 1 was executed by the Operator prior to Amendment No. 2.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
USBM (AD)
Prinz

So. 157 Howard Street
Spokane 4, Washington

November 13, 1957

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

Enclosed are the original and four copies each of a proposed Amendment No. 1 and a proposed Amendment No. 2 to your contract. In Amendment No. 1, item 1 changes the requirement for rotary drilling to authorization for pneumatic drilling. Amendment No. 2 deletes item 2 of Amendment No. 1, deletes Categories (1) through (7) of Article 6(a), and puts the contract on a fixed unit cost basis.

If the terms and conditions of both amendments are satisfactory, please sign the original and all copies of each amendment, keep the ones marked Operator's copy and return the others to this office.

If the terms and conditions are not satisfactory, please return all copies unsigned to this office with a statement of your objections. As the two amendments are related, do not sign amendment No. 2 unless Amendment No. 1 is satisfactory and signed.

As Amendment No. 2 puts the contract on a fixed unit cost basis, any claim for reimbursement for bulldozing should include an invoice or a statement signed by the dozer operator giving the number of hours he worked, and any claim for reimbursement for assays should be accompanied by assay certificates.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: DMEA (2)
USBM (2)
USBM (AD)
Prinz

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 11-14-57

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Hanson~~
4. Docket Control Mails and Files
5. Division
6. Docket Control Mails and Files
7. 700

Note comments in report regarding:

1.

2.

3.

4.

and take appropriate action.

- - - - - - -

Action taken by Division:

None at this time.
F.T. will forward
recommendations for Stage II

Robert E. Adams gb

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 14 1957
DATE | INITIALS | CODE
11/14 | gb | 220
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

October 29, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report. Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited October 4, accompanied by Messrs. O. Hart and C. Van Alstyne, AEC, Billings, Montana. The previous visit was on September 5.

None of the operating personnel were at the project site and all rotary drilling equipment had been removed.

On October 7 the writer met with Messrs. Hart, Van Alstyne, C. Hauptman, and G. Guaye, Operators, in the AEC office, Billings. The Operator reported that during September 5-October 4 the rotary drilling under Stage I and one hole under Stage II had been completed. Drilling was advanced in 8 holes, 7 of which were completed to ± 10% of the depth authorized and all (8) will be vouchered as completed. Hole No. 17 proved very difficult to drill and the first location was abandoned at 98-foot depth. The rig was moved to a new location, 5 feet away, and drilling advanced to 58-foot depth where it was abandoned because of drilling difficulties. Under terms of the contract the Government cannot participate in the cost of an uncompleted hole.

Status of the holes is as follows:

Hole	Started	Completed	Depth	Auth.	Probed *	Remarks
1	9/7/57	9/9	206	200	206	
2	9/6/57	9/7	102	100	102	
3	8/31/57	9/6	184	200	186	
4	8/27/57	8/27	102	100	104	
5	8/30/57	8/30	102	100	106	
6	8/29/57	8/30	102	100	104	
7A	9/10/57	9/11	106	100	105	
8	9/10/57	9/10/57	104	100	105	
9	9/11/57	9/12	104	100	104	
10	8/10/57	8/10	105	100	105	
11	8/2/57	8/10	180	200	200	
12	8/26/57	8/26	102	100	101	
13	8/1/57	8/1	112	100	111	
14	8/12/57	8/13	100	100	99	
15	8/16/57	8/16	105	100	104	
16	8/19/57	8/19	104	100	104	Bit lost at 60'; moved 1' west.
17	7/25/57	9/17	98 58	200	94	Abandoned at 98'; moved location 5' and again abandoned at 58'.
18	7/23/57	7/25	102	100	94	
19	8/20/57	8/20	104	100	104	
20	8/20/57	8/21	184	200	240	Cavity at 172', bit fell 10'. Down hole drill lost in hole.
21	9/16/57	9/16	104	100	102	Stage II - F.T. auth.

*Probing may show greater depth than hole depth because of openings on or below bottom of hole or because of boulders on floor of cavern.

The probing and lithology logs will accompany the Operator's report.

During the meeting the underground work to be done under Stage II was discussed and the Operator was told to submit, in writing to the Field Team, his choice of site, etc. and request approval.

Status of the contract is as follows:

Date of contract: June 3, 1957
Termin ation date: February 1, 1958
Contract amount: $27,008.00
Amount spent: none

Interim report: 9/5/-10/4/57

Work Item	Authorized	Advance	Completed
Stage I - actual cost			
Bulldoze drill sites	80 hrs.		
Rotary drill (100' holes)	2000 ft.	560 ft.	2058 ft.
" " (200' holes)	500 ft.	146 ft.	410 ft.
Moving drill & standby	33 hrs.		
unit cost			
Incidental allowance	2500 ft.	706 ft.	2468 ft.
Chemical analysis	25 samples		
Stage II - actual cost			
Rotary drill (100' holes)	1000 ft.	104 ft.	104 ft.
unit cost			
Incidental allowance	1000 ft.	104 ft.	104 ft.
Chemical analysis	23 samples		

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher

1201 N. Division St.
Spokane 2, Washington

October 29, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection report. Docket No. DMEA-4619 (uranium) Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

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8	9/10/57	9/10/57	104	100	105	
9	9/11/57	9/12	104	100	104	
10	8/10/57	8/10	105	100	105	
11	8/2/57	8/10	180	200	200	
12	8/26/57	8/26	102	100	101	
13	8/1/57	8/1	112	100	111	
14	8/12/57	8/13	100	100	99	
15	8/16/57	8/16	105	100	104	
16	8/19/57	8/19	104	100	104	Bit lost at 60'; moved 1' west.
17	7/25/57	9/17	98 58	200	94	Abandoned at 98'; moved location 5' and again abandoned at 58'.
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21	9/16/57	9/16	104	100	102	Stage II - F.T. auth.

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The probing and lithology logs will accompany the Operator's report.

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Status of the contract is as follows:

Date of contract: June 3, 1957 Interim report: 9/5/-10/4/57
Termin ation date: February 1, 1958
Contract amount: $27,008.00
Amount spent: none

Work Item	Authorized	Advance	Completed
Stage I - actual cost			
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Incidental allowance	1000 ft.	104 ft.	104 ft.
Chemical analysis	23 samples		

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/6	Murphy	700
"	Ellis	700
11/6	[illegible]	130
"	Johnson	1196
11/6	[illegible]	220
		700

NOV 6 1957

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Weissenborn:

With reference to the postscript in our letter, dated November 4, 1957, we are returning the copies of proposed Amendment No. 1 for execution by the Operator.

You will note that Item 1 of this amendment changes the drilling from "rotary" to "pneumatic."

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

FMMurphy/gla
11-6-57

cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, Rm. 5224
Mr. Murphy

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

October 30, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED

DATE		CODE
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11-5	FMM	700

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Selfridge:

Returned herewith are all copies of proposed Amendment No. 1 sent to us with your letter of October 14, 1957. A new amendment is to be prepared in accordance with your teletype of October 22 and ours of October 23.

Sincerely yours,

A. E. Weissenborn by Olen
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
USBM (AD)
Prinz

MR. SELFRIDGE:

We sent proposed Am.#2 to FT 11/1/57 with request Am.#1 be executed by Operator prior to execution of Am.#2.

HBerry

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 4 1957
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So. 157 Howard Street
Spokane 4, Washington

November 1, 1957

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

This is in reference to your telephone conversation on October 18, 1957, with John A. Bowsher, Bureau of Mines, and William C. Prinz, Geological Survey. Your proposal to bulldoze an 85-foot trench northward from a point about 45 feet west of hole SA-17 and to drift northward from the end of this trench has been presented to us for consideration.

We feel that the primary objective of the underground exploration work is to examine the good showing found in hole SA-13, and, should this showing look encouraging, examine the ore zone in other directions. Your proposal necessitates 85 feet of trenching and about 150 feet of drifting in barren ground above the ore horizon, and, at the fixed unit cost of $31.50 per foot, would amount to $4725, excluding the cost of bulldozing. We feel that a 40- to 45-foot shaft along hole SA-13 would give the same results and would be quicker and less expensive. At the fixed unit cost of $47.50 per foot plus the allowance of $340.50 for a headframe and accessories, the cost of a 45-foot shaft would be only $2678. From the bottom of this shaft, you would be in a position to drift in any direction which seemed to warrant further exploration.

For the reasons stated above, we cannot approve locating a portal at the site you outlined in your conversation with Bowsher and Prinz. We urge you to consider a shallow shaft at the site of hole SA-13 as the quickest and least expensive means of beginning the exploration of the ore zone.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA(2)
USGS(2)
USBM(AD)
Prinz

OFFICIAL FILE COPY
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So. 157 Howard Street
Spokane 4, Washington

October 23, 1957

MEMORANDUM

To: The Files

From: William C. Prinz, Geologist, U. S. Geological Survey

Subject: Telephone conference with John A. Bowsher, Mining Engineer, U. S. Bureau of Mines and C. M. Hauptman, President, Midland Mining Company, Docket No. DMEA-4619 (uranium), Sandra Group, Carbon County, Montana, Contract No. Idm-E1097.

While John A. Bowsher, U. S. Bureau of Mines, was in Spokane, C. M. Hauptman, President, Midland Mining Company, telephoned on October 18, 1957 to discuss a possible portal site for Stage II underground work in connection with the subject contract.

Hauptman reported that all Stage I and the one authorized Stage II drill holes had been completed and the holes probed radiometrically and the cuttings assayed. Holes completed since my last Interim Inspection Report dated September 26, 1957, which showed zones of anomalous radioactivity were reported as follows:

Hole no.	Depth (ft.)	Mr/hr.	%U_3O_8 (chem.)
SA-7A	20-22	.35	.001 to .004
	28	--*	?
	43-47	--*	.05
SA-8	19-29	Second scale	.01 to .06
	46-51	.10	.02
SA-9A	38-42	Second scale	.03
	92-104	.50	.02
SA-21	No distinct peaks, some radioactivity to .08 MR/hr.		

*Radioactivity above background, exact readings not reported.

The operator proposes to explore the shallow zone of anomalous radioactivity found by the surface drilling program by crosscutting and drifting as provided in Stage II of the subject

contract. He would like to start along the road about 45 feet west of SA-17 and bulldoze a trench northward for about 85 feet. At the end of this trench (which would be about 25 feet south of SA-15) he would like to start underground and crosscut north to intersect the zone of radioactivity around holes SA-13 and SA-9A. From here, he would drift northward along the zone toward hole SA-4. It would take about 150 feet of crosscutting from the end of the dozer trench to reach this zone.

An alternate portal site, which the operator does not favor, would be along the cliff, S. 75° E., 65 feet from hole SA-12. From this site, it would take 105 feet of crosscutting to reach the zone of anomalous radioactivity 38 to 42 feet deep in SA-9A, and 145 feet to reach the zone in SA-13 where the greatest radioactivity and highest assays were found (see Operator's narrative report for August 1957). The operator does not favor this portal site because snow drifting over the edge of the cliff would make it very difficult to keep it open during the winter months.

Shaft sinking was also discussed with the operator as a possible means of getting to the radioactive zone, but he is oposed to this method.

The operator was asked to state his proposal in a letter to the Field Team for formal action.

William C. Prinz

cc: DMEA (2)
USBM (2)
USBM (AD)
Prinz

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/1	Murphy	700
"	Ellis	700
"	Chambers	800
11/1	GCS	130
"	Johnson	110
		~~100~~
11/4	C	220
		700

NOV 4 1957

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed Amendment No. 2 to the subject contract, signed by the Administrator for the Government. Also, enclosed are two extra copies for Field Team use.

If you and the Operator find the proposed amendment 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 amendment has been prepared in accordance with the Field Team's recommendations, transmitted October 23, 1957.

In view of the correspondence exchanged with the Field Team, it has been decided that placing the work on a Fixed Unit Cost basis is the best solution to the problems encountered in the administration of the subject project.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

FMMurphy/gla 11-1-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Murphy

P.S. As Amendments Nos. 1 and 2 are related, Amendment No. 1 should be executed by the operator prior to Amendment No. 2.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/25	Ellis	700

October 25, 1957

Memorandum

To: File

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

Subject: Docket No. DMEA-4619
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

JUSTIFICATION FOR AMENDMENT NO. 2

On September 12, 1957, in a letter to the Field Team, the Operator explained the drilling difficulties encountered in the project work. Because of this letter and the Field Team's letter, dated September 18, an Amendment No. 1 was approved by the Administrator.

However, Mr. MacLaren called Mr. Selfridge on October 21 and informed him that the Operator had contracted the drilling on an hourly basis. After some discussion, it was decided administratively that it would probably be best to amend the contract placing all the work on a fixed unit cost basis (see teletype October 22, 1957).

The primary reason for this decision was based on the Operator's letter of September 12, which indicated that the actual costs of the project work might exceed those allowed under the original contract.

The proposed Amendment No. 2 reflects the same maximum costs as those allowed in the original contract.

F M Murphy

F. M. Murphy

FMMurphy/gla
cc to: Mr. Murphy

8623

DRAFT
10/25/57
FMMurphy/g

DOCKET COPY

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 2

It is agreed this _____ day of _____, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Midland Mining Company, hereinafter called the "Operator," that Exploration Project Contract No. Idm-E1097 (Docket No. DMEA-4619), dated June 3, 1957, hereinafter called the Contract, is further amended, effective July 22, 1957, as follows:

1. Item 2 of Amendment No. 1 is deleted in its entirety.
2. In Exhibit "A" of the Contract, under Estimated Costs of the Project, all items are deleted and replaced as follows:

Stage I

Fixed Unit Costs

Bulldozer work on access roads and drill sites, 80 hours @ $15.00/hr.	$1,200.00
Rotary drilling:	
Holes from 0-100 feet in depth, 2,000 feet @ $3.40/ft.	6,800.00
Holes from 100-200 feet or more in depth, 500 feet @ $4.85/ft.	2,425.00

Moving drill and stand-by time,			
33 hours @ $10.40/hr.		$ 343.20	
Chemical analyses for U_3O_8 content			
of 25 samples @ $5.00/sample		125.00	
Total Estimated Cost Stage I			$10,893.20

Stage II

Fixed Unit Costs

Rotary drilling holes 0-100 feet			
in depth, 1,000 feet @ $3.40/ft.		$3,400.00	
Crosscutting 400 feet @ $31.50/ft.,		12,600.00	
or			
Sinking 150 feet of prospect			
shafts at following costs:			
Headframe and	$ 540.50		
Advance shaft:			
0 to 50 feet @ $47.50/ft.	2,375.00		
50 to 100 " @ $55.00/ft.	2,750.00		
100 to 150 " @ $65.00/ft.	3,250.00		
150 to 199 " @ $75.00/ft.	3,675.00		
Total cost headframe and shaft	$12,590.50		
Chemical analyses for U_3O_8			
content of 23 samples @			
$5.00/sample		115.00	
Total Estimated Cost Stage II			$16,115.00

S U M M A R Y

Total Estimated Cost Stage I	$10,893.20
Total Estimated Cost Stage II	16,115.00
Total Estimated Cost of Project (rounded)	$27,008.00
Government Participation @ 75%	$20,256.00

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 24 1957

DATE	INITIALS	CODE
10/24	C	220
"	R Cary	700

XDXXXXXX-031K

YWA047 WAF SP 4 I-BOM

SPOKANE WASH 10-23-57 0905U

GEORGE C. SELFRIDGE, CHAIRMAN OPERATING COMMITTEE

DMEA, WA

REURTT OCTOBER 22, DMEA 4619 MIDLAND MINING COMPANY AMENDMENT TO CONTRACT AUTHORIZING FIXED UNIT COST AT SAME COST AS ORIGINAL CONTRACT SATISFACTORY. SUGGEST THAT THE ESTIMATED COST OF DRILLING UNDER INDEPENDENT CONTRACTS BE COMBINED WITH THE INCIDENTAL ALLOWANCE UNDER FIXED UNIT COSTS AND THAT FOOTNOTE 1 BE RETAINED.

WING G. AGNEW, ACTING EXECUTIVE OFFICER

22 4619 I

EKC 0910U

OCT 23 1 07 PM '57
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/22	Murphy	700
10/22	Kelsaw	700
10/22	Selfridge	130
"	Johnson	110
"	Gottesdiener	100
220	gb	220
		700

OCT 22 1957

Department of the Interior

DMEA

14X4401(01) Revolving Fund, Defense Production Act, Interior, (Transfer to Office of Secretary)

T E L E T Y P E

A. E. WEISSENBORN, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION I
SOUTH 157 HOWARD STREET
SPOKANE 4, WASHINGTON

RE TELEPHONE CALL MACLAREN OCTOBER 21, DMEA-4619, MIDLAND MINING COMPANY. IN THIS PARTICULAR CASE WE WILL AMEND CONTRACT TO FIXED UNIT COST BASIS AT SAME COSTS AS ORIGINAL CONTRACT. ADVISE IF SUCH AN AMENDMENT WILL BE SATISFACTORY.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE

FMMurphy/gla
(10/21/57) 10-22-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Murphy

Confirmation to Region I

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/22	[illegible]	120
		110
		100
10/23	gb	220

October 21, 1957

~~OCT 22 1957~~

Memorandum

To: Administrator

From: George C. Selfridge, Special Assistant

Subject: Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Mr. MacLaren telephoned today to explain that there was a misunderstanding with respect to the independent contracts category of the subject docket. He explained that the contract called for drilling on a footage basis under independent contracts. Because the operator was unable to secure bids on a footage basis, it planned to do the work itself, and thus proposed Amendment No. 1 was sent to the Field. Apparently the operator then decided to have the work done by an independent contractor on an hourly basis, and Mr. MacLaren wished to know if the operator could do so and bill DMEA on a footage basis. The writer informed him that he would have to discuss the matter with Legal and Audit and that he would teletype a reply. Discussion resulted that it would be necessary to amend the contract.

George C. Selfridge

George C. Selfridge (GCS)

GCSelfridge/hb (10/21/57)
Copy to: Docket
Admr. R. File
GCSelfridge
Chron.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/9	Murphy	700
10/9	Kuhnert	700
10-10	Chambers	800
10/11	[illegible]	130
"	Johnson	110
"	Whitenbury	109
10/14	[illegible]	220
		700

OCT 14 1957

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4619 (Uranium)
Contract No. Idm-E1097
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed Amendment No. 1 to the subject contract, signed by the Administrator for the Government. Also, enclosed are two extra copies for Field Team use.

If you and the Operator find the proposed amendment 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 amendment has been prepared in accordance with the Field Team's recommendations, transmitted September 18, 1957.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JLB)

FMMurphy/gla
10-9-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Murphy

Enclosures

APPROVED:

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

W. P. Williams (JLB)
Member, Geological Survey

8623

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE
10/7	B	220
9	Com	100
	FMM	

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

September 26, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: William C. Prinz, Geologist, U. S. Geological Survey

Subject: Interim inspection report, Docket No. DMEA-4619 (Uranium), Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was examined September 3, 1957, accompanied by John A. Bowsher, Mining Engineer, U. S. Bureau of Mines, and C. M. Hauptman, Operator. The following table and the attached map give the results of the drilling since the last inspection on August 5, 1957. The results of the Operator's radiometric probing of the holes are also given. The discrepancies between the recorded hole depth and probed depth are due to sloughing, faulty calibration of the probe recording device, or the fact that the hole was bottomed in an open cavity or fissure.

Hole no.	Probed to (ft.)	Depth (ft.)	MR/hr.	Remarks (Background is .05 MR/hr. or less)
SA-3	Incomplete and not yet probed. 160' deep 9/3/57			
SA-4	104	7	0.09	Rest of hole at or near background
		8	0.15	
		9	0.04	
		10	0.06	
SA-5	106	40	0.05	
		42	0.06	
		44	0.07	Rest of hole at or near background
		90	0.07	
		92	0.08	
SA-6	104	All of hole at or near background.		
SA-10	105	74	0.06	
		76	0.05	
		78	0.07	Rest of hole at or near background.
		79	0.16	
		80	0.15	
		81	0.16	
		82	0.06	

Hole no.	Probed to (ft.)	Depth (ft.)	MR/hr.	Remarks (Background is .05 MR/hr. or less)
SA-11	112-200	At or near background. (0-112 reported in last interim)		
SA-12	101	All of hole at or near background.		
SA-14	99		do	
SA-15	104	30	0.06	
		31	0.15	Rest of hole is at or near background.
		32	0.15	
		33	0.46	
		34	0.11	
		35	0.45	
		36	0.08	
SA-16	104	All of hole is at or near background.		
SA-19	104		do	
SA-20	240	All of hole is at or near background. Hit cavity at 172' and bit fell free for 10'. Hole bottomed at 184'.		

In this district it has been established that the chemical assays will equal about twice the radiometric determination. The cuttings from the high radioactive portions of these holes contain no visible tyuyamunite chips, and the samples have not yet been assayed. Excluding the high radioactive zone deep in SA-5 and in SA-10, the radioactive areas in the holes seem to lie roughly in a plane dipping gently south or southwest. The shallow radioactivity in SA-5 is weak and may be near the border of the ore zone. After the drilling program has been completed, the orientation and delineation of this zone with a greater degree of accuracy will be possible. The radioactive areas deep in SA-5 and in SA-10 may represent a second zone at a deeper level but the radioactivity here is weak. The cavity in SA-20 indicates a cave at a lower level than had been anticipated; however, this cave apparently is not mineralized.

While on the property, the Operator discussed moving hole SA-7 approximately 30 feet north and 5 feet west and hole SA-9 to a point approximately 50 feet south of SA-11, and drilling a 100-foot Stage II hole, SA-21, about 40 feet east of SA-14 and 60 feet north of SA-15. SA-7 is very close to SA-8 and the proposed move would plug the gap between SA-8 and SA-4. SA-9 is along the top of the cliff in a place where drilling would be

dangerous. Its proposed new location and the proposed Stage II hole, SA-21, would fill in the area between SA-11 and SA-15, both of which showed high radioactive zones. The Operator requested these changes in a letter to the Field Team dated September 12, 1957 and the Field Team authorized these changes in its letter of September 18.

Possible portal sites as provided for in Stage II of the contract were discussed but it was decided to postpone a decision until the drilling program has been completed.

The Operator has not been able to lease the adjacent claim to the west as he had hoped to do.

Enclosure

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Prinz

DRAFT
9/25/57
FMMurphy/gla

DOCKET COPY

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

AMENDMENT NO. 1

It is agreed this _____ day of _____, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Midland Mining Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1097 (Docket No. DMEA-4619), dated June 3, 1957, hereinafter called the "Contract," that effective July 22, 1957, the Contract is amended as follows:

1. In Exhibit "A" of the Contract, all references to the type of drilling are changed from rotary drilling to pneumatic drilling; and

2. Under Estimated Costs of the Project, Stage I and Stage II, Actual Costs, Category (1) Independent Contracts, the Government hereby authorizes the Operator, if it so elects, to perform the drilling with its own equipment and personnel. If the Operator elects to perform the work it shall keep suitable records and accounts of the actual drilling costs. However, the unit costs per foot of drilling shown under the Estimated Costs of the Project will remain maximums under 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.

THE UNITED STATES OF AMERICA

By_____
Administrator, Defense Minerals
Exploration Administration

MIDLAND MINING COMPANY

By_____

Title_____

OFFICIAL FILE COPY
DME
RECEIVED SEP 20 1957

DATE	INITIALS	CODE
9-20	C	220
"	FMM	700

SEP 20 7 20 AM '57

XDXXXXXX-155K

YWD161 WAF SP 15 I-G.-G

SPOKANE WASH 9-19-57 1620U

GEORGE C. SELFRIDGE, CHAIRMAN OPERATING COMMITTEE

DMEA, WA

REURTT SEPTEMBER 19, DOCKET DMEA 4619, MIDLAND MINING COMPANY.

OUR RECOMMENDATIONS FOR AMENDING THE CONTRACT MAILED TO YOU SEPTEMBER 18.

A F WEINENBORN

18 DMEA 4619 18

EKC 1623U

SEP 20 8 48 AM '57

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-19	Murphy	700
9-19	Ellis	700
9/19	Selfridge	130
"	Johnson	110
9/20	C	220
		700

SEP 19 1957

Department of the Interior

DMEA

14X4401(01) Revolving Fund, Defense Production Act, Interior, (Transfer to Office of Secretary)

T E L E T Y P E

A. E. WEISSENBORN
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION I
SOUTH 157 HOWARD STREET
SPOKANE, WASHINGTON

DMEA-4619 MIDLAND MINING CO. REFER TO INTERIM REPORT AUGUST 23. AMENDMENT TO CONTRACT REQUIRED IF OPERATOR IS PERFORMING THE DRILLING. KINDLY SUBMIT YOUR RECOMMENDATIONS.

George C. Selfridge

CHAIRMAN, OPERATING COMMITTEE

FMMurphy/iz, 9-19-57
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 23 1957

DATE	INITIALS	CODE
9/23	C	220
		130
"	Murphy	700

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

September 18, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Selfridge:

Enclosed are two copies of a self-explanatory letter from Mr. C. M. Hauptman, president of the subject project, requesting authorization to voucher on an actual cost basis. Since the Operator was unable to obtain an independent drilling contract, we recommend that his contract be amended to permit him to voucher on an actual cost basis at a cost not to exceed that specified in the current contract.

The shifting of several drill holes, as mentioned in the last part of Mr. Hauptman's letter, is reasonable and he has been authorized by the Field Team to proceed with this work.

By Field Team, Region I

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E. Howard

Thomas E. Howard, Acting Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM (AD)
Prinz

[illegible] MINING COMPANY
[illegible] Bldg.
[illegible], Montana

[illegible]

[illegible] his rig on the basis of the above-mentioned [illegible]

and 2 to 3 feet of high count.

RECEIVED
JUL 16 1967

COPY

CHAS. E. CHAMP DRILLING COMPANY, INC.
Box 224 Phone Vestar 5-3209
Riverton, Wyoming

January 7, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 23 1957

DATE	INITIALS	CODE

MIDLAND MINING COMPANY
Mr. C. M. Hauptman
714 National Bank Bldg.
Billings, Montana

Dear Sir:

We beg to submit this estimate for your drilling program of 5,000 feet of hole in the West Pryer (sic) Area, Montana.

For non core drilling

0 to 100 feet = 2.90 per. ft.

100 to 200 feet = 4.35 per. ft.

Standby time = 10.40 per. hr.

Moveing time = 10.40 per. hr.

For Core drilling = 15.00 per. ft.

Client to furnish all locations and roads.

For D-7 CAT tractor

Day rates = = 13.00 per. hr.

Client to furnish moving.

The above figures indicate a minimum of ten hours for each working day.

We hope we can be of service to you.

Yours very truly,

(s) Chas. E. Champ

Chas. E. Champ

1957

ORIGINAL FILE COPY
DMEA
RECEIVED SEP 23 1957
DATE | CODE

So. 157 Howard Street
Spokane 4, Washington

September 18, 1957

Mr. C. M. Hauptman, President
Midland Mining Company
207 Hedden Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Hauptman:

This is in answer to your letter of September 12, 1957, in which you request authorization to move the sites of two Stage I drill holes, to drill one Stage II hole, and to voucher on an actual cost basis.

Your proposal to move hole SA-7 approximately 30 feet north and 5 feet west and hole SA-9 to a point approximately 50 feet south of SA-11, and to drill a 100-foot Stage II hole, SA-21, about 40 feet east of SA-14 and 60 feet north of SA-15 has been studied. We agree that this work would better serve your exploratory purposes and hereby authorize you to proceed with these holes.

Before you can voucher on an actual cost basis, an amendment to your contract will be necessary. We have referred your request to Washington and as soon as we receive a reply, we will advise you.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E. Howard, Acting Member
U. S. Bureau of Mines

cc: DMEA (2)
USBM (2)
USBM (AD)
Prinz

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE
10/9	B	220
7	[illegible]	100
10/8	~~Murphy~~	~~900~~

September 13, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-4619 (uranium), Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited September 5, accompanied by Messrs. Prinz, U. S. Geological Survey, and C. M. Hauptman, Operator. The previous visit was on August 5.

During the interim rotary drilling has advanced in 13 holes, 11 of which were completed. To date, (Stage I) 13 holes have been completed, 2 are incomplete, and 5 are not started. Status is as follows:

Hole	Started	Completed	Depth	Auth.	Probed*	Remarks
1				200		
2				100		
3	8-31		160	200		Incompleted
4	8-27	8-27	102	100	104	
5	8-30	8-30	102	100	106	
6	8-29	8-30	102	100	104	
7						
8						
9						
10	8-10	8-10	105	100	105	
11	8-2	8-10	180	200	200	
12	8-26	8-26	102	100	101	
13	8-1	8-1	112	100	111	
14	8-12	8-13	100	100	99	
15	8-16	8-16	105	100	104	
16	8-19	8-19	104	100	104	Bit lost @ 60' - moved 1' west
17	7-25		98	200	94	Incompleted
18	7-23	7-25	102	100	94	
19	8-20	8-20	104	100	104	
20	8-20	8-21	184	200	240*	Cavity @ 172', bit fell 10' Down-hole drill lost in hole

*Probing may show greater depth than hole depth because of openings on or below bottom of hole or because of boulders on floor of cavern.

The probing and lithology logs will accompany the Operator's report. The probing log accompanies the U. S. Geological Survey interim report.

Hole No. 20 was considered bottomed at the present depth of 184 feet because the cavern floor is probably covered by boulders prohibiting deeper drilling.

To date the Operator has not succeeded in negotiating a contract for the rotary drilling. At present the drilling is being done by the Moab (Utah) Drilling Co., using a down-hole drill machine developed by the Gardner-Denver Co. The drill is still in the experimental stage, particularly for drilling in the cherty limestone formations encountered in the Pryor Mt. area; however, the drill has had some success on the Colorado Plateau uranium area.

Status of the contract is as follows:

Contract date: June 3, 1957 Interim inspection: 9/5/57
Termination date: February 1, 1958 " report: 8/5-9/5/57
Amount of contract: $27,008.00
Amount spent: none

	Authorized	Advance	Completed	Vouchered
Stage I - actual cost				
Bulldoze drill sites	80 hrs.			
Rotary drill (100' holes)	2000 ft.	1100 ft.	1498 ft.	
" " (200' holes)	500 ft.	178 ft.	264 ft.	
Moving drill & standby	33 hrs.			
Stage I - unit cost				
Incidental allowance	2500 ft.	1278 ft.	1762 ft.	
Chemical analysis	25 samples			

John A. Bowsher

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 9-17

Referred to:

1. ~~Mr. Wissendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. Docket Control Mails and Files
5.
6. ~~Docket Control Mails and Files~~ Division
7. 700

Note comments in report regarding:

1. Contract requires amendment to allow
2. Operator's costs of drilling.
3.

Talbert 9/17/57

4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Telotype to Field Team for its recommendations.

Terry.

Robert Adams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1201 N. Division St.
Spokane 2, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 16 1957
DATE | CODE
9-17 C 220
9-18 FM

August 23, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest Dist~~rict~~

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Initial interim report, Docket No. DMEA-~~4619 (uranium)~~ Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The project was visited August 5, accompanied by Messrs. W. Prinz, U. S. Geological Survey, and C. M. Hauptman, Operator.

The Operator reported that work began before June 25, 1957, as specified in the contract. Initial work consisted of establishing, by plane table and stadia, 20 rotary drill hole locations, and preparation of some drill sites by bulldozing with a D-7 caterpillar unit.

During the interim, rotary drilling had advanced in 4 holes, 2 of which were completed. Hole SA-11 was drilled to 172 feet (authorized 200 feet) and probed to 112 feet. At 27-foot depth the probe indicated 0.55 MR/hr; at 28 feet, 0.45 MR/hr. Hole SA-13 was bottomed at 112 feet (authorized 100 feet) and probed to 111 feet. At depths of 28, 34, 38.5 and 41.5 feet the probe indicated, respectively, 0.30, 3.00, 0.15 and 0.30 MR/hr. Hole SA-17 was drilled to 98 feet (authorized 200 feet) and probed to 94 feet, indicating only normal background MR/hr. Hole SA-18 was bottomed at 102 feet (authorized 100 feet) and probed to 94 feet, indicating only normal background MR/hr. The diameter of the bit used is 4 inches.

The Operator reports that he is unsuccessful in obtaining a contract or bids for the rotary drilling under independent contract which is an actual cost item. He has been informed that he will have to document the actual cost of the drilling before payment will be approved.

The status of the contract is given on the attached sheet.

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bowsher

John A. Bowsher

Contract No. Idm-E1097

Contract date: June 3, 1957
Termination date: Feb. 1, 1958
Amount of contract: $27,008.00
Amount spent:

Interim inspection: 8/5/57
" report: 6/25-8/5/57

	Authorized	Advance	Completed	Vouchered
Stage I - actual cost				
Bulldoze drill sites	80 hrs.			
Rotary drill (100' holes)	2000 ft.	398 ft.	398 ft.	
" " (200' holes)	500 ft.	86 ft.	86 ft.	
Moving drill & standby	33 hrs.			
- unit cost				
Incidental allow.	2500 ft.	484 ft.	484 ft.	
Chemical analysis	25 samples			

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

DMEA
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9-17 C 220
9-18 F M

September 4, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: William C. Prinz, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4619 (Uranium), Midland Mining Company, Sandra Group, Carbon County, Montana, Contract No. Idm-E1097

The property was visited August 5, 1957, accompanied by J. A. Bowsher, Mining Engineer, U. S. Bureau of Mines, and C. H. Hauptman, operator. George and Homer Guay, lessors, joined us late in the day to discuss work in the area in general.

Since the road log to the property given in the examination report is incorrect, a corrected log is presented here. Turn east in Warren, Montana and follow the gravel road toward the Big Horn lime quarry for 2.8 miles where the main quarry road turns left. Take the road to the right and at 10.8 miles from Warren, turn left and follow the steep road to the property. At 14.3 miles from Warren, take the left fork and at the cabins, at 15.2 miles, turn right. The operator's cabin is 15.4 miles and his property is 15.9 miles from Warren.

Drill sites have been prepared and drill holes staked out and numbered. The numbers of the various holes are shown on the accompanying map. Two 100-foot holes, SA-13 which bottomed at 112 feet and SA-18 which bottomed at 102 feet have been completed, and two 200-foot holes, SA-11 and SA-17, have been started. SA-17 was drilled to 98 feet where it was necessary to cement. SA-11 has been drilled to 172 feet but the bit stuck at 150 feet and the drill rod broke off $2\frac{1}{2}$ feet above the bit. At the time of the examination, the drillers were out getting equipment with whichto recover the lost bit. To date, drilling has been difficult and slow.

The holes have been probed radiometrically by the Operator with the following results:

(Map in envelope)

Hole No.	Probed to	Depth	M.R./hr.	Remarks
SA-11	112'	27.0	0.55	Rest of hole at or near background.
		28.0	0.45	
SA-13	111'	28.0	0.80	
		29.0	0.60	
		30.0	3.00	
		31.0	3.00	
		32.0	1.40	Rest of hole at or near background.
		33.0	0.60	
		34.0	0.30	
		38.5	0.19	
		39.0	0.15	
		40.0	0.19	
		41.0	0.30	
		41.5	0.15	
SA-17	94'	All of hole at or near background.		
SA-18	94'	All of hole at or near background.		

Cuttings from the "hot spots" consist of buff siliceous limestone and gray chert with some yellow tyuyamunite. Detailed logs will be submitted by the operator with his monthly narrative report.

The operator inquired about possible work on the claim to the west, which he does not yet control. He was told that when he obtains a lease on the property in question, he should write the Spokane office officially requesting the additional work and that the application would then be considered by DMEA.

William C. Prinz

Enclosure

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Prinz

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DMEA
RECEIVED JUL 12 1957

DATE	INITIALS	CODE
7-12	C	220

So. 157 Howard Street
Spokane 4, Washington

July 8, 1957

Mr. C. M. Hauptman, President
Midland Mining Company
207 Haddem Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Hauptman:

This will acknowledge your letter of July 2, 1957, with which you returned the signed copies of Contract Idm-21097.

The intent of the drilling is to explore for caves containing uranium ore in the Madison limestone. The horizon in which the caves may be found is believed to be within 100 feet of the surface. Because the caves may be found at a deeper horizon, five holes have a maximum depth of 200 feet. The depths as defined under Exhibit A, Stage I, are approximately 100 feet and approximately 200 feet. Any individual hole drilled to a depth a little under or a little over the prescribed depth for that hole as shown on Plate II would probably be considered as completed under the hypothetical conditions you give. On the other hand, should a hole, after passing through mineralized rock in the first 25 or 30 feet, be stopped at 50 feet when the approximate depth is given as 100 feet, it might be difficult to consider that hole as completed.

Should such a question arise you should get in touch with the Field Team before considering that a hole less than approximately 100 feet has been completed.

By Field Team, Region I, NW District

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren, Acting Member
U. S. Geological Survey

cc: DMEA (2) w/2 copies of incoming
USBM (AD) w/copy of incoming
USBM (2)
Sample

MIDLAND MINING COMPANY
207 Madden Building
Billings, Montana

July 2, 1957

Mr. A. F. Weissenborn
Defense Minerals Exploration Administration
No. 187 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandre Group
Carbon County, Montana

Dear Mr. Weissenborn:

Enclosed are the five copies of the contract properly dated and signed by the officers of Midland Mining Company.

Kindly note that the mailing address for the Midland Mining Company has been changed from 714 Midland National Bank Bldg. to 207 Madden Bldg.

The only question that we have concerning the contract is the governing definition of an unfinished hole. As I interpret it, an unfinished hole is one which is less than the depths specified on the map. Would it be possible to modify this provision if the need arises during the process of the drilling? It would seem logical to consider a hole completed if mineral bearing rock had been drilled through and then extremely difficult encountered thereafter feet. I merely bring up the question inasmuch as our drilling program will begin no later than July 8th and I would like to be in a position to discuss it with you as the drilling progresses.

Very truly yours,

MIDLAND MINING COMPANY

President

wm/em

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DMEA
RECEIVED 1957
DATE CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 11 1957

DATE	INITIALS	CODE
7/4	P.K.	220
7/12	B	215
	~~[illegible]~~	~~780~~

July 8, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana
Contract No. Idm-E1097

Dear Mr. Selfridge:

Enclosed are the Government, Audit, and Division copies of the above-referenced contract.

By copy of this letter, other copies of the contract are being distributed.

Sincerely yours,

Donald R. MacLaren

Donald R. MacLaren
for: Wing G. Agnew
Acting Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: Finance Office w/encl.
USBM (2)
Sample

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 13 1957

DATE	INITIALS	CODE
6/17	JWL	220
	~~EMM~~	~~700~~

So. 157 Howard Street
Spokane 4, Washington

June 7, 1957

Mr. C. M. Hauptman, President
Midland Mining Company
714 Midland National Bank Building
Billings, Montana

Re: Docket No. DMEA-4019 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Hauptman:

Enclosed are the original and five copies of a proposed 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 by Pryor Mining Company, Exhibit "A" (5 pages), a map showing the location of the Sandra group of claims, and a map showing the location of the proposed work.

If you find the proposed contract meets with your approval, please insert in Article 3 of the contract form the date work shall commence, and sign all copies, retain the one marked for the Operator, and return the others to this office.

If any part of the proposed contract does not meet with your approval, then the original and all copies, are to be returned to this office with your comments.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, R gion I, NW District

Enclosures

cc: DMEA (2)
USBM (2)
USBM (AD)
Sample

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6.3	Murphy	700
6-3	Ellis	700
6-3	[illegible]	800
6/3	GCB	130
4	Rattenbury	100
6-4	C	210
		700

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

JUN - 3 1957

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Weissenborn:

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 by Pryor Mining Company, Exhibit "A" (5 pages), a map showing the location of the Sandra group of claims, and a map showing the location of the proposed work. Also enclosed are two extra copies of Annex I and Exhibit "A".

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.

In the proposed contract you will note that the "Incidental Costs" are lower than those recommended by the Field Team, because the extra laborer was not considered necessary. The supervisor should be able to perform the sampling or any other work required on a one shift drilling program. Also, in calculating the cost of shaft sinking one supervisor, one miner, and one mucker was considered sufficient to sink a small exploratory shaft.

C

8623

The Field Team's recommendation of $31.50 per foot for crosscutting is used in the proposed contract. However, in similar DMEA contracts only one miner and one mucker are allowed. In accepting this figure, consideration was given to the fact that the Field Team's estimate of 3.5 feet advance per day might be high because of possible difficulty in drilling and breaking the silicified breccia rock and the fact that hand-mucking would be performed. A smaller daily advance because of these factors, would probably increase the labor costs to about the Field Team's estimated total labor cost.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

Frank D. Lamb

Member, Bureau of Mines (FDL)

Thor H. Kiilsgaard

Member, Geological Survey (THK)

FMMurphy/gla 5-28-57 dlm 6-3-57
cc to : Admr.'s Reading File
Operating Committee
THKiilsgaard, Rm. 5224
Code 700, Mr. Murphy

Mr. Mittendorf:

Mr. Selfridge has surnamed, but he has two objections:

1) Method. ← 2nd stage { Drilling, Shafting, X-cutting } Fixed

We don't tell him how to perform his work. We usually say "location, direction, and extent of the work" are subject to Gov't approval.

2) Costs. ? advance 35¢/day

Stage 2. $31.50.

See field report. This will be just little adits from the surface. p. 14

P. 16, justification:

Crosscutting at $31.50

3 men allowed. 2 are enough.

Took $6000 off. Contract set up for $27,000.

Original f.t. report was for almost $34,000.

Figured would need extra man for framing track and pipe laying, nipper, and taking care of compressor, working on dump track, etc.

Mangley

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/28	Murphy	700
"	Ellis	700
5-28	Chandler	800
5/29	GCB	130
		100
		220
		700

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Weissenborn:

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 NF-200 are Annex I (1 page), a Consent to Lien and Subordination Agreement by Pryor Mining Company, Exhibit "A" (5 pages), a map showing the location of the Sandra group of claims, and a map showing the location of the proposed work. Also enclosed are two extra copies of Annex I and Exhibit "A".

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.

FMMurphy/gla 5-28-57
cc to: Admr.'s Reading File
Operating Committee
T. H.Kiilsgaard, Rm. 5224
Code 700, Mr. Murphy

Sincerely yours,

Chairman, Operating Committee

Enclosures

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

8623

DRAFT
EMMurphy/izm
~~5-6-57~~
5-7-57

MF-200
(Revised June 1954)

Docket No. DMEA 4619

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] Midland Mining Company, incorporated in the State of Montana, whose mailing address is 714 Midland National Bank Building, Billings, Montana, 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 two maps, one showing location of claims, and the other the location of the work.

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 Montana, County of Carbon, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

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

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(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 executed by Pryor Mining Company

(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 February 1, 1958 (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 $ ~~27,760.00~~ 27,008.00 (rounded) The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $ ~~20,820.00~~ $20,256.00 : *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 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

(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.

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.*—

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

DRAFT
FMMurphy/izm
5-7-57

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

ANNEX I

The land referred to in Article 2 of the Contract consists of Five (5) contiguous unpatented lode mining claims. Notices of the location of the claims are recorded in the Carbon County Recorders Office at Red Lodge, Montana as follows:

Claim	Date Recorded	Book	Page
Sandra	9-22-55	7	488
" (relocation)	12-22-55	8	195
Myrna	"	8	206
Wanda	"	8	210
Vi	"	8	207
Blonde Edna	"	8	198

The Operator has rights of possession of the claims under a Lease and Agreement, executed October 19, 1956 by and between the Pryor Mining Company and Midland Mining Company recorded December 18, 1956 on page 322 of Book 15 of Lease records, Carbon County, Montana.

A Consent to Lien and Subordination Agreement executed by Pryor Mining Company is attached hereto and made part hereof.

The approximate locations of the above claims with reference to a known land mark places them in unsurveyed sec. 33, T. 8 S., R. 27 E., M.P.M., as shown on the attached map entitled "Lode Claims of Pryor Mining Co. on Big Pryor Mountain --- etc.," attached hereto and made part hereof.

EXPLORATION PROJECT CONTRACT
MIDLAND MINING COMPANY
DOCKET NO. DMEA-4619

EXHIBIT "A"

Description of the Work

General Provisions:

The object of this project is to explore the Madison Limestone of Mississippian Age underlying the subject property by means of rotary drilling, crosscutting, drifting, and/or shafting.

Cuttings from drill holes shall be collected for each two-foot interval and tested for radioactivity. Samples showing significant radioactivity shall be split. The Operator shall have one-half of the sample chemically analyzed for its U_3O_8 content and store the remainder in a suitable container properly identified as to hole number and depth interval the sample represents.

Mineralized sections of crosscuts, drifts, and/or shaft shall be sampled over 5-foot sections. Each sample shall be split, the Operator having one-half chemically analyzed for its U_3O_8 content and store the remainder in a suitable container properly identified as to the location where the sample was procured.

The stored portions of the cuttings and other samples shall be for Government inspection and possible use. With previous Government approval the Operator shall dispose of the stored samples.

The rotary drill holes shall be approximately 3½ inches in diameter. The Government will not participate in the cost of an incomplete hole.

Crosscuts and drifts shall be timbered where necessary and shall not be less than 5' x 7' in cross-section clear of the timber. In the event a shaft is sunk in lieu of crosscutting or drifting, the

shaft shall be not less than 4' x 7' in cross-section, with timbered hoisting compartment and guides, and a manway. The manway shall contain ladders and be protected from the hoisting compartment by lagging.

Construction of access raods and drill sites "A" shall be performed with a D-7 Caterpillar doser, or an equivalent unit of any other make.

The rotary drill holes shall be probed radiometrically by the Operator and the drifts, crosscuts, and/or shaft shall be mapped geologically. The Operator's montly progress report shall include maps or sketches showing the location and extent of the work completed during the reporting period, also the assay values of the samples and the rock structures encountered. The report shall also include the hole probing data, together with the assay certificates of the cuttings samples and the samples from the crosscuts, drifts, and/or shaft.

The Operator shall employ a supervisor full time to provide the necessary technical services and the direction of the work in order to complete this contract in a satisfactory manner.

The location, direction, extent, and method of performing the work under the contract are 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. With previous written Government approval, unexpended funds and units of work remaining in Stage I and Stare II may be interchanged to complete work authorized under the contract.

Stage I

The work under Stage I shall consist of drilling not in excess of 20 holes at the approximate locations shown on the map entitled "Plate 2 - Geologic Map of the Sandra Lode Claim --- etc.," attached hereto and made part hereof. The three holes shown in the southwest corner of the Sandra claim shall not be closer than 50 feet to the side line of the claim and the remaining seventeen holes shall not be closer than 100 feet to the outer boundary of the project area. It is estimated that 15 holes drilled to depths of approximately 100 feet and 5 holes drilled to depths of approximately 200 feet will be required to explore the anomalous radioactivity areas and their possible extensions on the Sandra claim.

It is estimated that 80 hours of bulldozer work, 2,500 feet of rotary drilling, 33 hours of standby and drill moving time, and chemical analyses of 25 samples will be required to complete the 20 holes.

Stage II

Stage II shall consist of drilling not in excess of 1,000 feet of holes to follow out mineralization trends disclosed by Stage I drilling, and 400 feet of crosscutting or 150 feet of shaft work, or part crosscutting and part shaft sinking with total cost not to exceed $12,600.

Not more than 23 samples shall be chemically analyzed for their U_3O_8 content under Stage II of the contract.

Estimated Costs of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

80 hrs. bulldozer work on access roads and drill sites @ $15/hr.	$1,200.00	
Rotary drilling:		
2,000 ft. holes from 0-100 feet in depth @ $2.90/ft.	5,800.00	
500 ft. holes from 100 to 200 feet or more in depth @ $4.35/ft.	2,175.00	
Moving drill & standby time, 33 hrs. @ $10.40/hr.	343.20	$9,518.20

Fixed Unit Costs

Incidental allowance for each foot of drillhole completed, 2,500 ft. @ $0.50/ft.	$1,250.00	
Chemical analyses for U_3O_8 content of 25 samples @ $5/sample	125.00	$1,375.00
Total Estimated Cost Stage I		$10,893.20

Stage II

Actual Costs

Category (1) Independent Contracts

Rotary drilling:		
1,000 ft, holes from 0 to 100 feet in depth @ $2.90/ft.	$2,900.00	

Fixed Unit Costs

Incidental allowance for each foot of drill hole completed, 1,000 ft. @ $0.50/ft.	$ 500.00	
Crosscutting, 400 ft. @ $31.50/ft., or	12,600.00	$13,100.00
sinking 150 feet of prospect shafts at following unit costs:		
Headframe and accessorys	$540.50	
Advance shaft 0 to 50 ft. @ $47.50/ft.	2,375.00	
Advance shaft 50 to 100 ft. @ $55/ft.	2,750.00	
Advance shaft 100 to 150 ft. @ $65/ft.	3,250.00	
Advance shaft 150 to 199 ft. @ $75/ft.	3,675.00	
Total cost headframe & shaft	$12,590.50	
Chemical analyses for U_3O_8 content of 23 samples @ $5/sample		115.00
Total Estimated Cost Stage II		$16,115.00

Summary:

Total Estimated Cost Stage I	$10,893.20
Total Estimated Cost Stage II	$16,115.00
Total Estimated Cost of Project (rounded)	$27,008.00
Government Participation @ 75%	$20,256.00

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Work sheets

Incidental drilling costs.

Supervisor	1½ months @ $600/mth	$900.00
Materials		63.40
Depreciation Jeep 1½ months @ 33.33/mth 16.66		49.99
Rental surveying equipment		50.00
Office supplies		25.00
Payroll taxes @ 14.9%		134.10
		$1222.49

$1222.49 / 2500' = $0.50/ft. (0.488)

Crosscutting - Stq. II. 400' ~ 4.6 months

6 - 9.

Shaft Sinking - 0-50'

Headframe - footing material and erecting

materials	$ 217.96	$ 217.96
Labor & Supervision (5 days)		
supervision @ $22.00/day	110.00	
1 miner @ $18.14/day	90.70	
1 mucker @ $16.00/day	80.00	280.70
Payroll Tax @ 14.9%		41.84
Total for Headframe		$ 540.50

Sinking - 0-50'

Labor & Supervision (20 days)		
supervision @ $22.00/day	$ 440.00	
1 miner @ $18.14/day	362.80	
1 mucker @ $16.00/day	320.00	$ 1122.80
Payroll taxes @ 14.9%		167.30
Materials (see Field Team Report)		880.35
Rental Operating equipment (see Field Team Report)		193.32
		$ 2363.77

Cost per foot (0-50')	$ 47.50
" " " (50-100')	$ 53.00
" " " (100-150')	$ 65.00

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IN REPLY REFER TO:

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

Documents complete

May 3, 1957

DMEA 4619
Midland Mining Company
Sandra Group
Carbon County, Montana
App. Est.: $124,590.00
Recommended Est.: $12,044.24

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report

The applicant requested assistance in exploring by a)drilling and b) drifting and crosscutting a large area underlain by the brecciated upper part of the Madison Limestone. Within the brecciation roughly on the crest of an anticlinal fold, jointing and faulting are common and caves have been formed and in some of the joints and caves are found economic amounts of uranium minerals, particularly tyuyamunite.

From one deposit on the Sandra, not in a cave, but in a limestone bluff face, 10 tons of sorted material was mined and shipped. It assayed:

% U_3O_8	% V_2O_5	% $CaCO_3$
0.19	0.34	48.9

From a cave deposit on the Old Glory claim about $\frac{1}{2}$ mile west of north of the Sandra claim 346 tons of silicious material was shipped which assayed:

% U_3O_8	% V_2O_5	% $CaCO_3$
0.82	0.63	3.2

Except for the bluff deposit on the Sandra claim there appears to be no other known deposits suggesting mining tonnages, but at least 2 anomalous radioactive areas were found by a radiometric survey made by a member of the A.E.C.

The anomalous areas offer definite targets for 2 or 3 holes recommended by the examiners and the Field Team. The targets of the

other holes are most indefinite presumedly unknown caves and breccia zones existant within about 100 feet of the surface.

Should the drilling of the anomalies result successfully a technique for following the zones of brecciation, and cave formation may be developed that will make the essentially targetless drilling less hazardous and justify the comparatively modest recommended work program.

I concur with the recommendation of the examiners and the Field Team.

N. E. Nelson

N. E. Nelson

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

Date April 30, 1957

DMEA Project No. 4619
DMEA Contract No.
Commodity Uranium
Name of applicant Midland Mining Company
Name of property Sandra Group of claims
Location of property Carbon County, Montana
Estimated cost of project $124,590.

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

Review of Examination report
(Application, Field Exam Report, etc.)

1. Date of subject document: 4/22/57 2. Date received by reviewer: 4/29/57

3. Has comment on this report been sent to reviewer: Yes [ ] No [ ]

4. Has comment on earlier report been sent to reviewer: Yes [ ] No [ ]

5. Information available on past production: Yes [ ] No [ ]

6. Has pertinent factual data been sent to reviewer: Yes [ ] No [ ]

7. Explain items marked yes above:

8. Factors needing special consideration:
a. Location [ ]
b. Commodity [ ]
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. Defer [ ]
d. Agree with Field Team [X]
e. Disagree with Field Team [ ]
f. Suggest alternate plan [ ]
g. Request another examination [ ]
h. Approval [X]
i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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DATE	INITIALS	CODE
4/25	JCW	[redacted]
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		130
4/30	C	220
	Murphy	700

April 22, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group of claims
Carbon County, Montana

Reviewed by
DMEA OPERATING COMMITTEE
4-29-57
(date)

Dear Mr. Selfridge:

Enclosed are four copies of a memorandum examination report by R. D. Sample, geologist, Geological Survey and E. W. Parsons, mining engineer, Bureau of Mines, on the above-referenced property. Also enclosed are six copies of a Consent to Lien executed by the Pryor Mining Company.

The Sandra claims lie within an area 5 miles long and ½-mile wide that has produced from 21 openings approximately 1,465 tons of uranium ore averaging 0.448 percent U_3O_8. The ore occurs as tyuyamunite in soft clayey material and silicified breccia that fills caves in the upper part of the Madison limestone. Although the individual caves are usually not large, the material within them is rather high grade and easily mined. There are several producing mines on both sides of the property and several radioactivity anomalies, one apparently strong, have been found on the Sandra claims.

Sample and Parsons recommend that a modified program in two stages be approved. Stage I will test all the anomalies and some of the intervening ground by 20 rotary drill holes. Stage II will follow up any favorable holes in Stage I by offset drilling, winzing, or cross-cutting, to determine the extent of the showing. Which method of Stage II exploration will be best will depend upon the thickness and depth of ore indicated by Stage I, and the location of the showing with respect to the steep slope east of the anomalies. Therefore, Sample and Parsons recommend sufficient flexibility in this stage to permit a choice of offset drilling, winzing, or crosscutting.

We concur with the recommendations of Sample and Parsons.

By Field Team, Region I, NW District

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren, Acting Member
U. S. Geological Survey

Enclosures

cc: USBM (2) USGS (SRO) Sample

maps in packet

ON-SITE EXAM. REPORT

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

April 12, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: R. D. Sample, Geologist, U. S. Geological Survey and
E. W. Parsons, Mining Engineer, U. S. Bureau of Mines

Subject: Examination Report, Docket No. DMEA-4619 (Uranium), Midland Mining Company, Sandra Group, Carbon County, Montana

INTRODUCTION

The Midland Mining Company of Billings, Montana, in an application dated January 21, 1957, applied for Government aid to explore the Sandra group of lode claims located on Big Pryor Mountain in the southeastern part of Carbon County, Montana (pl. 1). The applicant proposed a drilling, bulldozing, crosscutting and drifting program to explore for uranium at a total estimated cost of $124,590, of which the Government's participation would be $93,441.50.

The property was examined on February 13, 1957, by E. W. Parsons, Mining Engineer, Bureau of Mines, and R. D. Sample, Geologist, Geological Survey, accompanied by C. M. Hauptman, President, Midland Mining Company, and by George Guay, one of the original discoverers of the Big Pryor Mountain uranium deposits and part owner of the Sandra group of claims.

A short visit was made to the Old Glory workings, owned and operated by the Pryor Mining Company, about half a mile north of the Sandra claim and in the same geologic environment. A quick reconnaissance of the surface and underground workings was made to acquaint the examiners with the type of ore and structure which might be expected on the Sandra group of claims. The Old Glory mine has produced about 400 tons of 0.80 percent U_3O_8 during 1956 and is one of the principal mines of the district.

A Brunton and tape traverse was made northward from the southwest corner of the Sandra claim to determine the approximate location of its west side line (pl. 2).

Reviewed by
DMEA OPERATING COMMITTEE
4-27-57
(date)

Other workings and prospects south and west of the Sandra claim for a distance of 4 or 5 miles were hurriedly examined and the ore deposits observed. It was noted that all the deposits were located approximately along the southward plunging anticlinal ridge of the Big Pryor Mountain, and that they were all in cave fillings in the upper part of the Madison Limestone formation (pl. 1).

No samples were taken on the Sandra or other properties examined as a representative sample from any deposit would be difficult to take. It would either show barren or ore-grade rock rather than an indication of the average grade of the ore. The examiners believe that an analysis of mill returns on carload shipments from the immediate area will give a more realistic value of the ore which might be found in the future. At present the main bulk of ore shipped from this district has come from the cave-fill deposits, and it appears that the type and tenor of ore found in the future will be very similar.

Olin M. Hart of the Atomic Energy Commission was consulted at the Billings office. He made available to the examiners all the information that he had on the Pryor Mountain deposits, and was extremely helpful.

SUMMARY

The Sandra group consists of 5 claims in a contiguous group of 36 claims owned by the Pryor Mountain Mining Company, Billings, Montana. The Sandra group, now under lease to the Midland Mining Company, was among the first to be staked on the Big Pryor Mountain uranium area in the Custer National Forest, Carbon County, Montana. Uranium ore was discovered in this area in September 1955. The principal uranium mineral is tyuyamunite, a calcium-uranium-vanadate which is finely disseminated in the silicified cave breccia and in clayey cave fill in solution caverns; it is also found as fracture fillings in the upper 150-200 feet of the Madison Limestone formation. The age of the solution caverns is believed to range from Mississippian to present time. The caves seem to roughly parallel the crest of a sharply folded anticline which pitches southward.

More than 21 openings or pits excavated in cave deposits over an area half a mile wide by 5 miles long have produced approximately 1,465 tons of ore that averaged 0.448 percent U_3O_8. Most of the openings excavated have been caves which are filled with soft clayey material and silicified breccia containing tyuyamunite. However, some of the caves are almost barren of uranium mineralization, others are partly so.

The origin of the uranium deposits is unknown, but those observed all contain secondary uranium minerals which apparently were brought into the relatively porous cave fillings by circulating ground waters. The nearness of the deposits to major fault and disturbed zones suggests a possible hydrothermal origin.

RECOMMENDATIONS

Both members of the examining team agree that a modest unit cost drilling project consisting of 20 rotary drill holes totaling 2,500 feet of bore, followed by a second stage (unit cost) to consist of 1,000 feet of drilling, and a maximum of 400 feet of crosscutting and/or shallow shafts. The first-stage drilling would test the radiometric anomalies shown on the AEC radiometric grid map of the Sandra claim (pl. 2). A grid pattern roughly parallel to the west boundary line of the Sandra claim was plotted on plate 2. The 20 recommended drill holes were so placed that they are not strictly on a grid pattern but there will be at least one drill hole on each of the anomalies shown on the AEC map (overlay, pl. 2). All but three of these holes will be at least 100 feet from the west boundary line of the Sandra claim. These three holes were placed approximately 50 feet from the west boundary line in order to test the ground to the south beyond the southern limits of the AEC radiometric grid map which, on the basis of geology, appears to be as favorable for uranium mineralization as some of the ground to the north. Because the caves with which the ore bodies are associated are generally restricted in areal extent, exploration as close as this to the claim line boundary appears justified and will not necessarily benefit the adjoining claim. The few scattered drill hole sites to the north are placed on well-defined anomalies.

Of the 20 drill holes recommended for Stage 1 of the project, it is recommended that 15 holes have a maximum allowed depth of 100 feet, and 5 holes have a maximum allowed depth of 200 feet, for a total maximum of 2,500 feet of drill holes on the Sandra claim. As there are no indicated target areas on the other four claims of the Sandra group, no drilling is recommended. It is recommended, however, that should either the 100-foot or the 200-foot holes reach their objective before the maximum footage should be used, any extra footage may be used for extra holes or to deepen a hole which has used up the maximum footage and needs more footage to thoroughly test the ground, so long as the total footage does not exceed 2,500 feet. The depths of the recommended drill holes are noted on plate 2.

If the results of Stage 1 are favorable, Stage 2 will follow, the type of work and location to be approved by the Government. Footage allowed in cave areas will be decided on by the Field Team. The additional drilling will be to delineate cave openings found in Stage 1. The Field Team requests wide latitude in the location,

number and depth of drill holes, crosscuts, and shafts. The program should be flexible enough to allow either crosscutting or shaft sinking, whichever the Operator and the Government would agree to be more adequate and efficient.

LOCATION AND ACCESSIBILITY

The Sandra group of claims is in sec. 33, T. 8 S., R. 27 E., M.P.M. (unsurveyed), Carbon County, Montana, 6 miles north of the Montana-Wyoming state line. At Warren, Montana, a railroad shipping point 67 miles south of Billings, Montana, turn east from paved U. S. Highway No. 310 and follow a graveled country road for approximately 12 miles, thence left on an unimproved road for about 3 miles to the top of the ridge on Big Pryor Mountain and the Sandra claim at the cliff edge. A guide will be needed to point out the location of the claims. There are no buildings on any of the claims. The roads are passable during dry weather but may be impassable after heavy rains and snow.

Sparse vegetation of sagebrush, greasewood, and scrub cedars cover the dip slopes in the vicinity of the Sandra claims.

APPLICANT

The applicant is the Midland Mining Company, Billings, Montana, a corporation incorporated under the laws of the State of Montana. Its principal officers are:

C. M. Hauptman, President
714 Midland National Bank Bldg.
Billings, Montana

W. G. Mouat, Vice-President
805 Midland Nat'l Bank Bldg.
Billings, Montana

D. F. Todd, Sec'y-Treas.
714 Midland National Bank Bldg.
Billings, Montana

One of the officials of the company is a lawyer and the other two are consulting petroleum geologists. None of them has had any actual mining experience and little connection with mining. Mr. Hauptman will be in charge of the work should there be a DMEA contract. Mr. Hauptman states that the company has set aside $15,000 to be applied to the cost of this project and that more will be forthcoming if and when needed. The applicant plans to contract all the proposed work.

PROPERTY RIGHTS

The Sandra group of claims consists of 5 unpatented lode mineral claims which are recorded in the Carbon County Recorder's office at Red Lodge, Montana. Details of the recordings, according to the applicant, are:

Claim	Date recorded	Book	Page
Sandra	9/29/55	7	488
Sandra (relocation)	12/22/55	8	195
Myrna	12/22/55	8	206
Wanda	12/22/55	8	210
Vi	12/22/55	8	207
Blonde Edna	12/22/55	8	198

Quit claim deed - Sandra claim to Pryor Mining Company, 2/7/56 Book of Deeds No. 74, page 72.

Quit claim deed - Myrna, Wanda, Vi, and Blonde Edna claims to Pryor Mining Company, 12/17/56, Book of Deeds No. 74, page 371.

Lease and Agreement between Pryor Mining Company and Midland Mining Company, 12/18/56, covering Sandra, Myrna, Vi, Wanda, and Blonde Edna lode mining claims, Book of Leases No. 15, page 322.

DESCRIPTION OF PROPERTY

The 5 contiguous claims (Sandra group) included in the application extend from the crest of an anticlinal ridge, on Big Pryor Mountain, eastward down a steep slope for about half a mile to a flat upland bench along Crooked Creek, a tributary of the Big Horn River. There are no buildings or facilities on the property. Workings consist of one shallow bulldozer pit and a number of small stripped areas, and a 15-foot excavation in the face of a cliff. The maximum relief on the property is estimated to be about 1,000 feet. The surface of the property is covered for the most part by grassland but in protected areas there are patches of stunted evergreen, of which very little is suitable for mine timber.

HISTORY AND PAST OPERATION

The first discovery of uranium in the Big Pryor Mountain area was made on the Sandra ground in September 1955. Other than staking of claims, little was done in the area until snow had melted in the spring of 1956 when work was started on many of the claims. Work on the Sandra claim, the only one of the Sandra group on which any development work has been done, was started in October 1956. One 10-ton shipment of silicified limestone containing tyuyamunite was made in December 1956. This shipment assayed 0.19 percent U_3O_8, 0.34 percent V_2O_5, and 48.9 percent $CaCO_3$. Work on the claim was stopped in December 1956 because of snow and has not been resumed.

GEOLOGY

The Sandra group of claims straddles the crest of the Big Pryor Mountain fault-block which is the westernmost fault-block in a series related to the Big Horn-Pryor Mountain uplift of the Central Rockies. These uplifted blocks are referred to by D. L. Blackstone, Jr., as the "trap door" type of uplift. On the east these blocks are bordered by high, steep scarps with west-dipping, high-angle reverse faults with displacements of over 2,500 feet. On the top these fault-blocks form gentle west-dipping slopes which are irregularly stripped of the overlying formations and are bisected by steep-walled box canyons. Near the crest are many minor monoclinal folds and asymmetric anticlines. From a distance the topography on the west limb of the Big Pryor Mountain anticline appears to be a gentle dip-slope, but locally it may be very rugged due to differential erosion.

In the vicinity of the Sandra claim, the overlying sediments have been stripped down to the Madison Limestone formation which forms almost the entire surface of the southerly plunging ridge along which most of the uranium prospects and workings are located. Here and there are small remnants of the overlying Amsden or younger formations resting on the gentle slopes of the Madison Limestone. This persistent Madison Limestone formation is blue to blue-gray in color and contains abundant fossils of Mississippian age. It is thin bedded to massive in places and contains many chert nodules and discontinuous cherty layers. The formation is known to vary in thickness from 600 to 1,000 feet in the general region. In the Big Pryor Mountain area it is considered to be over 600 feet in thickness, although the amount removed from the upper unit by terrestrial erosion before the overlying Amsden formation was deposited has not been determined. Until about a year ago the Madison Limestone was never considered as a favorable host rock for uranium mineralization, although it was known to be similar to the Tyuya Muyun deposits of Russia (from whence came the name "tyuyamunite"). In the Tyuya Muyun deposits the secondary minerals of uranium are reported to be found above the water table, and pitchblende below the water table, which is about 570 feet below the land surface. A similar condition might conceivably exist at some place within the widespread Madison Limestone - maybe the Pryor Mountains.

The upper unit of the Madison Limestone was the only unit observed in the examination. Here it consists of crystalline, gray to yellowish-brown limestone having a thickness of 100-150 feet. It contains large chert nodules, cherty layers, and small seams of calcite. Many solution caverns have developed, especially in the upper 100 feet. Some of the caverns are partially open and others are entirely filled and recemented with secondary silica and soft, reddish clay. These caverns were probably developed when the limestone was

exposed to weathering and erosion, and a karst topography was formed over the surface. It is not improbable that some caverns were developed in the lower units of the Madison Limestone at this time and were connected irregularly with the caverns of the upper unit. This would be especially true if it could be shown that the caverns were developed along major fracture or joint systems. Most of the caverns are now filled with an assortment of country rock rubble and fine reddish sediments from the present surface. Chert nodules are abundant in the cave fillings and probably represent the insoluble residue of the surrounding limestone rock. Some of the cave fillings are stratified and indicate water deposition; in others, the irregular blocks and chert nodules indicate roof collapse and recementation by secondary silica and clay. On the surface some of these siliceous breccia zones stand out in bold relief because of their resistance to erosion. As these resistant zones are usually near the crest of the anticline where the greatest number of joints and cracks would normally be formed, it is probably this zone through which percolating ground water circulated more freely and as a result brought in additional minerals for recementation of the loose fragments. Uranium-bearing solutions could also circulate more freely through these open joints and fractures. Where the caverns are only partially filled with debris it is possible to explore some of the passages for 100 feet or more. Sometimes, where the passages are completely closed, it is possible to open a narrow obstruction and again come into a larger cave opening. The cave openings and passages are unpredictable as they may go up or down or off to either side. Not enough work has been done on these caverns to show whether they follow bedding, joints, or fault systems. The Atomic Energy Commission is at present mapping some of the cave deposits in detail to determine if the caverns do follow a general set pattern over any significant area. From this study it is hoped that a more systematic pattern for exploration can be found. Cavern development is probably continuing slowly at the present time and a study of the ground water of the district might aid in future exploration. Also, the use of geophysics might aid in the location of the buried caverns and filled channels.

ORE DEPOSITS

The only known ore of commercial value in the area is in the uranium deposits which occur in the upper 100-150 feet of the Madison Limestone and in the silicified rubble and clay-filled caverns, and in a few scattered joint fillings of the limestone country rock. Noticeable pods and fragments of fluorite and calcite crystals are frequent in the Old Glory workings, and barite and gypsum are reported from some of the workings near the south end of the mountain. However, none of these minerals are of commercial value and their presence only results in a penalty at the mill when shipped with the uranium ore. Only secondary uranium minerals have been identified, of which the principal one is the greenish-yellow tyuyamunite, a calcium-uranium-vanadate, whose formula is usually written as $Ca(UO_2)_2(VO_4)_2 \cdot 7\text{-}10\frac{1}{2}H_2O$.

Ten tons of hand-sorted ore taken from a mineralized exposure on the limestone cliff face of the Sandra claim (pl. 2) was shipped to the Riverton buying station in Wyoming. The shipment assayed 0.19 percent U_3O_8, 0.34 percent V_2O_5, and 48.9 percent $CaCO_3$. This ore shipment was not cave-fill material but came from the joint fillings in the unaltered limestone. This mineralized exposure in the cliff face may represent a seepage and precipitation of ground water, along joints and fractures in the limestone, from one of the cave-fill uranium deposits back a short distance from the cliff face. The high percentage of calcium carbonate is understandable as the joint fillings are all in limestone. However, most of the ore shipped to date from the immediate area has been the siliceous breccia ore from the cave fillings. These cave-fill deposits show a surprisingly low calcium carbonate content, and some of the shipments from the Pryor Mountain deposits show a surprisingly high uranium content - up to 3 percent U_3O_8 for some lots. Of 346 tons of ore shipped by the Pryor Mining Company from a neighboring property, the Old Glory mine, the average was 0.82 percent U_3O_8, 0.63 percent V_2O_5, and 3.2 percent $CaCO_3$. Shipments of ore from other cave-fill deposits in the area also show a relatively low $CaCO_3$ content, with relatively high uranium.

Most of the prospects and workings on the Big Pryor Mountain are on or near the crest line of the mountain and within half a mile of the north-south trending major fault bounding the east side of the mountain. This alignment of deposits, roughly paralleling the major faulting and folding, indicates indirectly a genetic relationship between the deposits and structure. It would therefore appear that the most favorable area for future exploration would be in the zones bordering the major crustal deformations.

Olin Hart, in charge of the AEC exploration program in Billings, Montana, made a radiometric survey of the Sandra claim. This survey showed several interesting anomalies (overlay for pl. 2). These anomalies should be tested by drilling or crosscutting to determine the value of radiometric anomalies. Should exploration of these anomalies prove successful in finding uranium ore radiometric surveying would become another tool for successful exploration of uranium in the Big Pryor Mountain district.

SOURCES OF SUPPLY

The principal sources of supply for materials, supplies, and equipment are Billings, Montana, 90 miles by road to the north, or Butte, Montana, about 330 miles westerly. The towns of Bridger, Montana, 25 miles northwest and Lovell, Wyoming, 20 miles southeast are minor supply points as well as the nearest residence points. Water is scarce and must be hauled 15 miles. Power must be supplied by gasoline- or diesel-driven equipment as power lines are too far

away for present use. Labor, some of which is experienced in mining and drilling, is available in the immediate area and will cost an average of $18 per man per day.

APPLICANT'S PROPOSAL

The applicant proposes to drill 12,000 feet of hole starting at an area of known anomalies near the center of the Sandra claim and continuing with holes on the Vi and Myrna claims to test a major fault. This is to be followed by 1,000 feet of drifting, probably 300 feet in an upper tunnel and 700 feet in an adit 300 to 400 feet lower. The applicant estimates the project would require 18 months to complete.

A summary of the applicant's proposed exploration and costs is given below and appears in his proposal as item 6.

Estimate of Costs

(a) Independent contracts	
Drilling	
Truck-mounted rotary	
0-100 ft. $2.90/ft.) average, $3.13/ft.	
100-200 ft. 4.35/ft.)	
Cost for 12,000 ft. (60-200 ft. drill holes)	$ 37,560
Cost for estimated 500 ft. of coring @ $15/ft.	7,500
Moving and standby time - 80 hrs. @ $10.40/hr.	1,840
Bulldozer	
D-7 $15/hr. Average 30 hrs./wk., estimated 20 wks. in 1957 and 10 wks. in 1958	
30 wks. x 30 hrs. x $15/hr.	13,500
Tunneling	
Drifting $31.50/ft. (contract)	
Timbering $12/ft. (contract)	
Cost for 1,000 ft. tunnel @ $43.50/ft.	43,500
Total cost for independent contracts	$103,860
(b)	
Drilling crew - 2 (contract)	
Dozer operator- 1 (contract)	
Geologist assistant - 1 $15/day & board & room (35 weeks, 5-day week)	2,625
Laborers and cook - 3 $15/day & board & room	7,875

Geol. and Eng. consult. - $500/mo. (6 mos.)	$ 3,500
Board & room $3/man/day 35 wks - 6-day wk.	3,150
Total labor costs	$ 17,150
(f) Small bunkhouse - equipped	1,000
Compressor and change shed	850
Total new buildings and improvements	$ 1,850
(g) Analytical work	500
Accounting	900
Workmens' comp.	170
Payroll taxes	120
Total miscellaneous expenses	$ 1,690
Grand total - Costs	$124,590

Following the examination the proposed project was discussed with the applicant and the type of work and costs permitted in DMEA work was explained. If a contract is granted, the applicant would prefer one based on a unit cost. It was pointed out that the size of the geological target is small and the work and funds requested are excessive. Nothing was said or implied which would indicate to the applicant that the application would be recommended or denied.

RECOMMENDED EXPLORATION PROJECT

A two-stage program is recommended as follows:

Stage I - contract drilling

15 rotary-drilled holes	100 feet	1,500 feet
5 rotary-drilled holes	200 feet	1,000 feet
		2,500 feet

Stage II - contract drilling, crosscutting, and shaft sinking

1,000 feet rotary drill hole

400 feet crosscutting or 150 feet of shaft work, or part crosscutting and part sinking with total cost not to exceed $12,600. Location and footage of drilling and sinking to be approved by the Government.

Work will start within 60 days of the date of the contract. Allowing for delays, Stage I should be completed within 3 months, or Stages I and II within 12 months.

The applicant was notified that costs for contract work would have to be supported by bids from three contractors, but as yet no bids have been received. Drilling costs furnished by the applicant are reported to have been taken from a submitted bid and this cost of drilling was confirmed by Olin Hart, AEC representative in Billings, Montana.

OPERATING EQUIPMENT

The applicant will furnish no equipment except a Jeep as all work will be done on contract. Apparently the engineer-geologist will furnish equipment for logging drill holes.

Equipment needed by the contractor will be listed to justify costs:

Item	Value	Monthly depreciation
Air compressor, 210 cfm	$6,000	$100.00
Sinker-type drill with leg	800	13.33
Hoist, air	1,400	23.33
Sinking bucket	300	5.00
Mine car	300	5.00
Truck	2,000	33.33
Jeep	2,000	33.33

RECOMMENDED PROJECT COSTS

STAGE I

Drill with a rotary rig five 200-foot holes and fifteen 100-foot holes (average depth) (± 3½" dia.) for a total of 2,500 feet.

Estimated time for completion: 2 months

1. Independent contracts

Drilling		
2,000 feet drill hole, 0 to 100 feet in depth (truck-mounted rotary) @ $2.90/ft.	$5,800.00	
500 feet drill hole, 100 to 200 feet in depth (truck-mounted rotary) @ $4.35/ft.	2,175.00	
Moving and standby time - 32 hours @ $10.40/hr.	332.80	
(No coring provided as ground is not suitable.)		
Bulldozer		
D7 - 80 hours @ $15.00/hr.	1,200.00	$9,567.80

2. Labor and supervision

Labor		
1 laborer @ $18.00/day - 40 days ?	720.00	
(No overtime; work 5-day week)		
Supervisor		
1 supervisor, engineer, geologist @ $600.00/mo. - 2 months	~~1,200~~.00 900.00 INC.	1,920.00

1½"

omitted in contract inc. costs

3. Operating materials and supplies

160 gal. gasoline @ $0.37/gal.	$ 59.20	
5 qts. lub. oil @ 0.50/qt.	2.50	$61.70

4. Operating equipment - to be furnished

1 Jeep @ $33.33/mo. ~~- 2 mo.~~ 1½ mo	66.66

5. Rehabilitation and repairs — none

6. New buildings, improvements, etc. — none

7. Miscellaneous

Unempl. comp., Indust. Ins., etc. 14.9% of payroll ($1,920.00)	~~286.08~~ 134.10
Total cost of drilling 2,500 feet	$11,902.24
Assays - chemical uranium	
25 @ $5.00/ea.	125.00
Sample sacks, shipping, etc.	17.00
	$12,044.24
Government participation at 75 percent	$ 9,033.18

STAGE II

Drill with rotary rig 1,000 feet of drill hole.

Crosscut an allowable maximum of 400 feet of 5'x7' crosscut, or sink prospect shaft an allowable maximum of 150 feet, or combination of the two, with maximum allowable cost to be $12,600.00. Location and footage to be determined by the Field Team. (If a shaft over 150 feet deep is needed, a crosscut would be more feasible and cheaper.)

Estimated time for completion: 114 days or 4.6 months

1. Independent contracts

Drilling		
1,000 feet drill hole, 0 to 100 feet in depth (truck-mounted rotary) @ $2.90/ft.	$ 2,900.00	
Crosscutting		
400 feet 5'x7' @ $31.50/ft.	12,600.00	$15,500.00

OR

Prospect shaft - 150 feet at following prices:
0 - 50' @ $72.00/ft.
50 - 100' @ 84.00/ft.
100 - 150' @ 95.00/ft.

2. Labor and supervision

Labor		
1 laborer-sampler @ $18/day - 114 days	2,052.00	
Overtime @ 8.3%	170.32	
Supervision		
1 supervisor-engineer-geologist @ $600/mo. for 4.6 months	2,760.00	4,982.32

3. Operating materials and supplies

300 gal. gasoline @ $0.37/gal.	111.00	
10 qts. lub. oil @ 0.50/qt.	5.00	116.00

4. Operating equipment - to be furnished	
1 Jeep @ $33.33/mo - 4.6 months	$ 153.32
5. Rehabilitation and repairs	none
6. New buildings, improvements, etc.	
Compressor and tool shed, portable, 10'x12'	280.00
7. Miscellaneous	
Unempl. comp., Indust. Ins., etc. 14.9% of payroll ($4,982.32)	742.37
Total cost of Stage II	$21,774.01
Assays - chemical uranium	
20 @ $5.00/ea.	100.00
Sample sacks, shipping, etc.	14.00
	$21,888.01
Government participation at 75 percent	$16,416.00

Recapitulation

Stage I	
2,500 ft. drill hole	$11,902.24
Assays, etc.	142.00
Stage II	
1,000 ft. drill hole) Crosscutting and/or sinking)	21,774.01
Assays, etc.	114.00
Total maximum cost of project program	$33,932.25
Government participation at 75 percent	$25,449.19

Costs to justify crosscutting charge of $31.50/ft.

2. Labor and supervision

Labor

2 minors @ $18.14/day - 114 days	2 062.96 ~~$4,135.92~~	3886.96 ? ✓
1 mucker @ 16.00/day - 114 days	1,824.00	~~$5,959.92~~

Supervision

1/2 time supervisor-bookkeeper @ $450/mo. for full-time month - 4.6 months	1,035.00	
Overtime @ 8.3% (~~$6,994.92~~) 4,921.96	408.52 ~~580.58~~	~~1,615.58~~ 1448.52

3. Operating materials and supplies

Timber

Stulls, 32 - 8"x8"x8' = 1356.8 bf	
6 - 8"x8"x8' = 254.4 bf	
Lagging, 32 - 2"x12"x5' = 320.0 bf	
1932.2 bf	
@ $70/M	135.18
Wedges, 100 @ $0.03/ea.	3.00
Air line - 2 in. - 400 ft. @ $0.43/ft. minus 50% salvage	86.00
Water line - 1 in. - 400 ft. @ $0.20/ft. minus 50% salvage	40.00
Pipe fittings - 20% of $252.00	25.20
Drill bits - 18 @ $15/ea.	270.00
Drill steel - 18 @ $9.10/ea.	163.80
Powder - 3500# @ $23/100#	805.00
Caps - 1500 @ $0.02/ea.	30.00
Fuse - 12,000 ft. @ $0.02/ft.	240.00
Diesel fuel - 2,000 gal. @ $0.22/gal.	440.00
Gasoline - 300 gal. @ 0.36/gal.	108.00
Grease, comp. and lub. oil	95.00
Repair parts @ $0.75/ft. - 400 ft.	300.00
1 air hose, 1 in. - 50 ft. @ $44/unit	44.00
1 water hose, 1/2 in. - 50 ft. @ $25/each	25.00

3. Operating materials and supplies (continued)

Track - 400 ft., 16# - 4,267 lb. @ $12/100 minus 50% salvage	256.00	
Fishplates, spikes, bolts - 10% of $512	51.20	
Ties - 267 @ $0.35/ea.	93.45	
Small tools	50.00	
4 carbide lights @ $2.50	10.00	
Carbide - 175 lbs. @ $11.05/100#	19.34	$3,290.17

4. Operating equipment - to be furnished by contractor

1 compressor, 210 cfm @ $100/mo., 4.6 mo.	460.00	
2 sinker type drill w/leg @ $13.33/mo., 4.6 mo.	122.64	
1 mine car @ $5/mo., 4.6 mo.	23.00	605.64

7. Miscellaneous

Unempl. comp., Indust. Ins., etc. 14.9% of payroll ($7,575.50)	1,128.75
Total	~~$12,600.06~~

6. New buildings, improvements, etc.

Compressor and tool shed - 10'x12'

Lumber

44 - 1"x12"x 8'	= 352 bf	
2"x 4"x600'	= 400 bf	
4"x6"x44'	= 88 bf	
	840 bf @ $180/M	$151.20
Corrugated sheet iron roofing 14 - 6' sheets @ $2.50/ea.		35.00
Nails and hardware		21.80
Labor - 2 man @ $18/day - 2 days		72.00
Total cost of shed		$280.00

Costs to justify prospect shaft 4'x7', 0 to 50 feet deep, @ $72.00/ft. Cribbed top and stulls below, headframe, and 40-ft. dump track.

Advance: 2½ feet/day plus 5 days to assemble material and build headframe - 25 days or 1.0 month

2. Labor and supervision

Labor

2 miners @ $18.14/day - 25 days ?	$907.00	
1 mucker @ 16.00/day - 25 days	400.00	
Supervision		
1 hoistman-supervisor @ $550/mo. - 1 mo.	550.00	
Overtime @ 8.3%	154.13	$2,011.13

3. Operating materials and supplies

Timber - headframe and shaft		
4 - 8"x8"x30' - 636 bf		
14 - 8"x8"x20' - 1484 bf		
38 - 6"x8"x16' - 2432 bf		
30 - 2"x12"x10' - 600 bf		
5152 bf @ $70/M	360.64	
60' ladders @ $1.35/ft.	81.00	
Wedges - 200 @ $0.03/ea.	6.00	
Air line, 2 in. - 60' @ $0.43/ft. minus 50% salvage	12.90	
Water line, 1 in. - 60' @ $0.20/ft. minus 50% salvage	6.00	
Pipe fittings - 20% of $37.80	3.78	
Drill bits - 2 @ $15.00/ea.	30.00	
Drill steel - 2 @ $9.10/ea.	18.20	
Powder - 450 lbs. @ $23/100#	103.50	
Elec. caps - 190 @ $0.35/ea., incl. lead wire	66.50	
Diesel fuel - 500 gal. @ $0.22/gal.	110.00	
Gasoline - 50 gal. @ 0.37/gal.	18.50	
Grease, comp. and lub. oil	23.13	
Repair parts @ $0.75/ft.	37.50	

3. Operating materials and supplies (continued)

Nails - 100 lb. @ $0.15/lb.	15.00	
Steel plate, 1/2", cut and drilled - 100 lbs. @ $25/100#	25.00	
Bolts for headframe		
16 - 5/8" x 5'3" @ $1.00	16.00	
48 - 5/8" x 5'3" @ 0.60	28.80	
Track - 40 ft., 16#, complete with ties	41.86	
4 carbide lights @ $2.50/ea.	10.00	
Carbide - 50 lbs. @ 0.12/lb.	6.00	
Blasting battery @ $46/ea., 50% salvage	23.00	
Sheave @ $50/ea., 50% "	25.00	
Small tools	30.00	$1,098.31

4. Operating equipment - 1 month

1 compressor, 210 cfm	@ $100/mo.	100.00	
2 sinker type drills	@ 26.66/mo.	26.66	
Hoist	@ 23.33/mo.	23.33	
Sinking bucket	@ 5.00/mo.	5.00	
Mine car	@ 5.00/mo.	5.00	
Truck	@ 33.33/mo.	33.33	193.32

5. Rehabilitation and repairs — none

6. New buildings, improvements, etc. — none

7. Miscellaneous

Unempl. comp., Indust. Ins., etc. 14.9% of payroll ($2,011.13)	299.66
Total cost of 50 feet of prospect shaft	$3,602.42

Cost per foot - $72.05 - SAY $72.00

Costs to justify prospect shaft 4'x7', from 50 to 100 feet, timbered with stulls, manway lagged and with platforms and ladders every 10 feet @ $84.00/ft.

Advance: 1.5 ft/day - 33 days, 1.33 mo.

2. Labor and supervision

Labor

2 miners @ $18.14/day - 33 days	$1,197.24	
1 mucker @ 16.00/day - 33 days	528.00	
Supervision		
1 supervisor-hoistman @ $550/mo., 1.33 mo.	731.50	
Overtime @ 8.3%	203.91	$2,660.65

3. Operating materials and supplies

Timber	
10 - 6"x8"x16' = 640 bf	
35 - 2"x12"x10' = 700 bf	
1340 bf @ $70/M	93.80
16 - 4"x6"x16' = 512 bf @ $200/M (for skip guides	102.40
60' ladders @ $1.35/ft.	81.00
200 wedges @ 0.03/ea.	6.00
Air line, 2 in. - 50 ft. @ $0.43/ft. minus 50% salvage	10.75
Water line, 1 in. - 50 ft. @ $0.20/ft. minus 50% salvage	5.00
Pipe fittings - 20% of $31.50 - 50% salvage	3.15
Drill bits - 2 @ $15/ea.	30.00
Drill steel - 6 ft. - 2 @ $9.10/ea.	18.20
Powder - 450 lbs. @ $23/100#	103.50
Elec. caps - 190 @ $0.35/ea., incl. lead wire	66.50
Diesel fuel - 660 gal. @ $0.22/gal.	145.20
Gasoline - 66 gal. @ 0.37/gal.	24.42
Grease, comp. and lub. oil	19.28
Repair parts @ $0.75/ft.	37.50

3. Operating material and supplies (continued)

Nails - 30 lbs. @ $0.15/lb.	4.50	
Carbide - 70 lbs. @ $0.12/lb.	8.40	
Guide bolts - 50 @ $0.20/ea.	10.00	
Air hose - 1" - 50' @ $44.00/ea.	44.00	
Water hose - 1/2" - 50' @ $20.00/ea.	20.00	
Cable - 250 ft., 1/2" @ $0.187/ft.	46.75	$ 880.35

4. Operating equipment - 1.33 months

1 compressor, 210 cfm	@ $100.00/mo.	133.00	
2 sinker type drills	@ 26.66/mo.	35.46	
Hoist	@ 23.33/mo.	31.03	
Sinking bucket	@ 5.00/mo.	6.65	
Mine car	@ 5.00/mo.	6.65	
Truck	@ 33.33/mo.	44.33	257.12

5. Rehabilitation and repairs — none

6. New buildings, improvements, etc. — none

7. Miscellaneous

Unempl. comp., Indust. Ins., etc. 14.9% of payroll ($2,660.65)	396.44
Total cost of sinking from 50 to 100 feet	$4,194.56

Cost per foot - $83.89 - SAY $84.00

Costs to justify prospect shaft 4'x7', from 100 to 150 feet, timbered with stulls, manway lagged and with platforms and ladders every 10 feet @ $95.00/ft.

Advance: 1.25 ft/day - 40 days or 1.6 month

2. Labor and supervision

Labor

2 miners @ $18.14/day - 40 days	$1,451.20	
1 mucker @ 16.00/day - 40 days	640.00	

Supervision

1 supervisor-hoistman @ $550/mo. - 1.6 mo.	880.00	
Overtime @ 8.3%	246.61	$3,217.81

3. Operating materials and supplies

Timber		
10 - 6"x8"x16' = 640 bf		
35 - 2"x12"x10' = 700 bf		
1340 bf @ $70	93.80	
6 - 4"x6"x16' = 192 bf @ $200	38.40	
Ladders - 60' @ $1.35/ft.	81.00	
200 wedges @ 0.03/ea.	6.00	
Air line, 2 in. - 50' @ $0.43/ft, 50% salvage	10.75	
Water line, 1 in. - 50' @ 0.20/ft, 50% "	5.00	
Pipe fittings - 20% of $31.50	3.15	
Drill bits - 2 @ $15/ea.	30.00	
Drill steel, 6' - 2 @ $9.10/ea.	18.20	
Powder - 450 lbs. @ $23.00/100#	103.50	
Elec. caps - 190 @ 0.35/ea.	66.50	
Diesel oil - 800 gal. @ $0.22/gal.	176.00	
Gasoline - 80 gal. @ 0.37/gal.	29.60	
Grease, comp. and lub. oil	25.64	
Repair parts @ $0.75/ft.	37.50	
Nails - 30 lbs. @ $0.15	4.50	
Carbide - 100 lbs. @ $0.12	12.00	
Guide bolts - 20 @ $0.20/ea.	4.00	$745.54

4. Operating equipment - 1.6 months

1 compressor, 210 cfm	@	$100/mo.	160.00	
2 sinker drills	@	26.66/mo.	42.66	
Hoist	@	23.33/mo.	37.33	
Sinking bucket	@	5.00/mo.	8.00	
Mine car	@	5.00/mo.	8.00	
Truck	@	33.33/mo.	53.33	309.32

5. Rehabilitation and repairs — none

6. New buildings, improvements, etc. — none

7. Miscellaneous

Unempl. comp., Indust. Ins., etc. 14.9% of payroll ($3,217.81)	479.45
Total cost of sinking from 100 to 150 feet	$4,752.12

Cost per foot - $95.04 - SAY $95.00

Attachments 3
Distribution:
DMEA (4)
USBM (5)
USGS(SRO)
AEC, SLC
AEC, Billings
Docket
Sample

ORIGINAL FILE COPY
DMEA
RECEIVED APR 1 1957

DATE	INITIALS	CODE
4/2	C	220
"	[illegible]	780

So. 157 Howard Street
Spokane 4, Washington

March 22, 1957

Mr. C. M. Hauptman, President
Midland Mining Company
714 Midland National Bank Building
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana

Dear Mr. Hauptman:

Our legal department has advised us that the Consent to Lien you submitted with your application must be executed on a standard DMEA form. Accordingly, we are enclosing seven copies of form MF-205 which should be filled out by you and signed by the owners of the Sandra Group of claims. Please return the original and five signed copies; the seventh copy is for the files of the signers of the form.

We regret this inconvenience to you, but it will be necessary to have the six signed copies of the form in order to further process your application.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosures

P. S. We are returning the four copies of the Consent to Lien you submitted with your application.

cc: DMEA (2)
UERM (2)
Sample

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 11 1957

DATE	INITIALS	CODE
2-11	C	220
	~~Murphy~~	~~700~~

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

February 6, 1957

Mr. Olin M. Hart
Chief Billings Section
Atomic Energy Commission
~~P. O. Box 2553~~
Billings, Montana

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Hart:

We have received from Midland Mining Company an application to participate in a program to explore for uranium on the Sandra, Myrna, Vi, Wanda, and Blonde Edna lode mining claims located in T. 8 S., R. 27 E., M.P.M., Carbon County, Montana.

Our field examiners, Dewey Sample, geologist, U. S. Geological Survey and E. W. Parsons, engineer, U. S. Bureau of Mines, plan to make an examination of the property the week of February 11, and would be glad to have one of your geologists accompany them if you would care to send someone. If you are unable to send a man along, they would like to call on you to discuss the project and obtain any information you can give them.

When their report is prepared, we will send you a copy for your comments.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: Arthur E. Granger
Salt Lake Area Office

DMEA (2)
USBM (2)
Sample

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
2-6	Murphy	700
2-6	Ellis	700
2/8	Selbridge	130
"	Johnson	110
"	Mittendorf	100
		220

FEB 8 1957

Mr. C. H. Hauptman, President
Midland Mining Company
714 Midland National Bank Building
Billings, Montana

Kilsgaard
Kamb

Re: Docket No. DMEA-4619 (Uranium)
Sandra Group
Carbon County, Montana

Dear Mr. Hauptman:

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 for a field examination to:

Mr. A. E. Weissenborn
Executive Officer, DMEA Field Team
Region I, Northwest District
South 157 Howard Street
Spokane 4, Washington

The Regional Office will contact you at the earliest opportunity in regard to your project.

Sincerely yours,

C. O. Mittendorf

Administrator

FMMurphy/izm 2-6-57
cc to: Code 700
Mr. Murphy
Admr.'s Reading File
DMEA FT Reg. I, NW Dist. (2)

R.C.S.

8623

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
2-6	Murphy	700
2-6	[illegible]	700
2/8	Selfridge	130
"	Johnson	110
"	Mattenson	100
2/12	C	2220

700

FEB 8 1957

Mr. A. E. Weissenborn
Executive Officer, DMEA Field Team
Region I, Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4619 (Uranium)
Midland Mining Company
Sandra Group
Carbon County, Montana

Dear Mr. Weissenborn:

The captioned application is referred to the Field Team, Region I, Northwest District, for investigation, a field examination, and recommendations.

Enclosed are copies of memoranda, dated January 30 and February 1, 1957, by J. E. Crawford, USBM, and N. E. Nelson, USGS, respectively, relating to the application. Also enclosed for Field Team use is one copy of the application. One transparent overlay, submitted with the application, is being mailed under separate cover.

The three copies of the Consent to Lien, submitted by the Applicant, are also enclosed. In the event the Field Team concludes that a project to explore the subject claims will be recommended, it should return these copies and advise the Applicant that we will require six executed copies of Form MF-205. The Associate Solicitor's Office has advised us that the Consent to Lien submitted does not meet our contract requirements.

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 2-6-57
cc to: Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. THKiilsgaard, 5224
JKratchman, AEC

8623

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

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 5 1957

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2-5	C	220
2/5	~~[illegible]~~	700

complete

February 1, 1957

Re: DMEA 4619
Midland Mining Co.
Sandra Group
Carbon Co. Mont.
$124,590.00 - 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 brecciated Madison Limestone by a) drilling and b) drifting and crosscutting.

From an open cut 10.09 tons (dry) of carefully selected material assaying 0.19% U_3O_8 and 0.34% V_2O_5 was shipped to Riverton Wyoming. The pit, as mapped, is 45 feet long and 10 feet wide and shallow, but from 40 to 100 tons would seem to have been excavated. A number of outcrops showing tyuyamunite are indicated on the map (Attachment 4) but they are not described. More sampling might have been done. If the shipment constituted a fair sample of the showing at the pit the grade is not all that might be desired.

However, an examination is probably warranted.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY DMEA RECEIVED JAN 31 1957		
DATE	INITIALS	CODE
1-31	C	220
1-31	[illegible]	700

January 30, 1957

4619

Uranium - tyuyamunite
Midland Mining Co.
Sandra Group
Carbon County, Montana

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Application

1/19/57 1/29/57

[x]

[x]

[x]

[x]

[x]

[x]

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

January 28, 1957

Midland Mining Company
714 Midland Nat'l Bank Bldg.
Billings, Montana

Subject: DMEA-1619

Gentlemen

Your application for exploration assistance, dated January 19, 1957 submitted to our office at Spokane, has been assigned Docket Number DMEA-1619 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

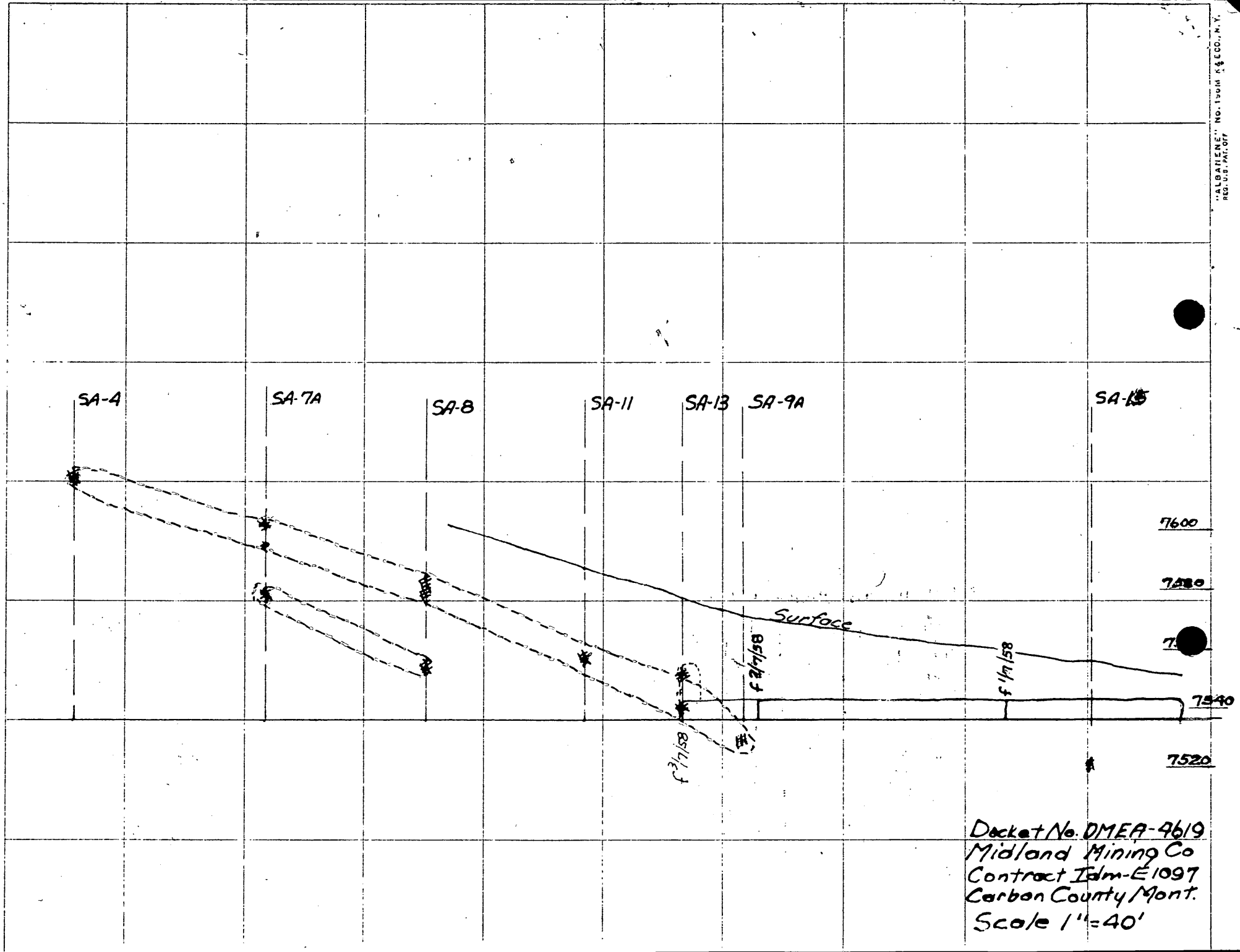
Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Region I, N.W. Spokane, Washington

Code 700

5416


SA-4
SA-7A
SA-8
SA-11
SA-13
SA-9A
SA-15
7600
7580
7540
7520
Surface
f 2/7/58
f 1/7/58
f 3/7/58
Docket No. DMEA-4619
Midland Mining Co
Contract Idm-E1097
Carbon County Mont.
Scale 1"=40'

OFFICIAL FILE COPY
DMEA
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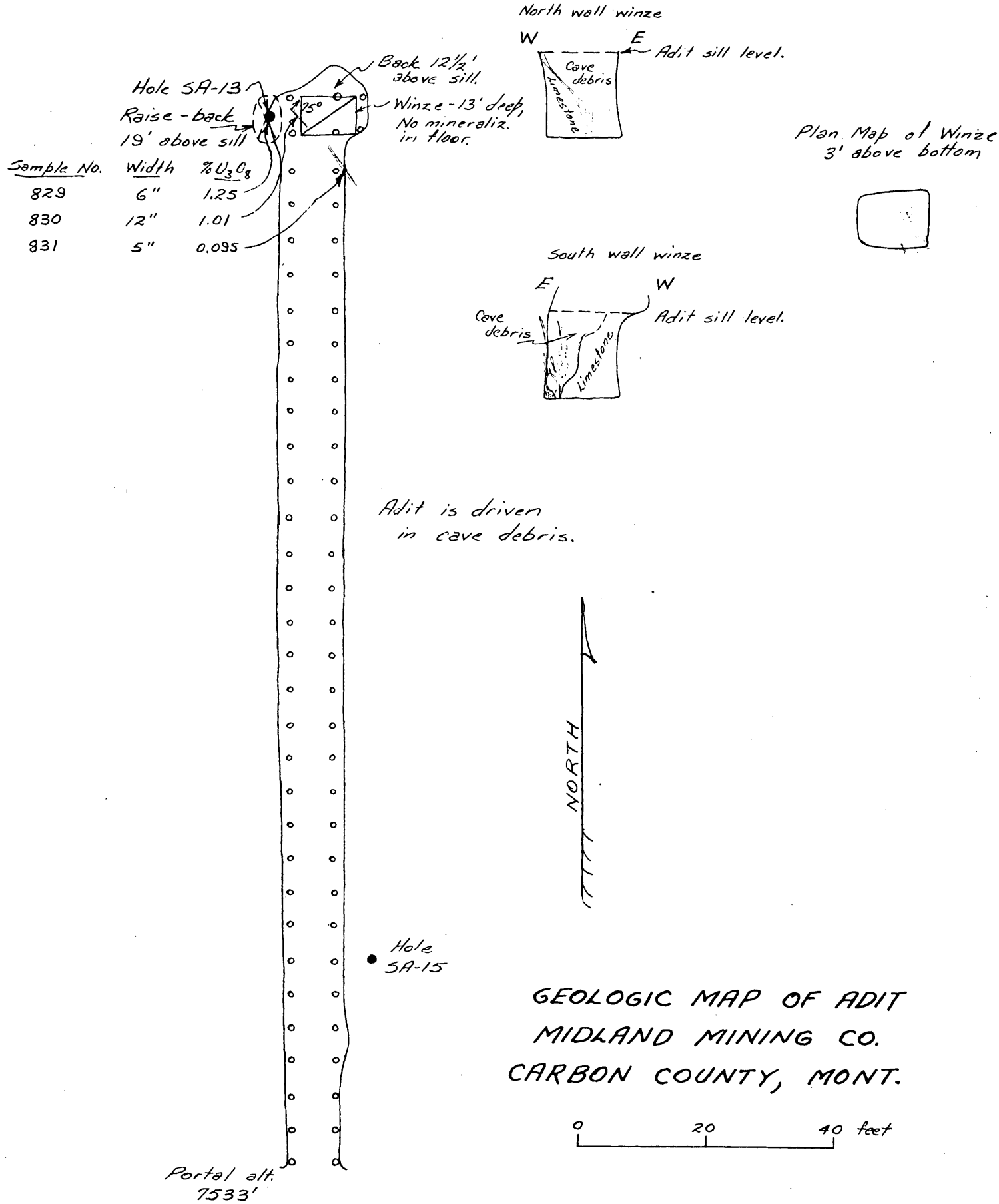
DATE	INITIALS	CODE

Docket No. DMEA-4619

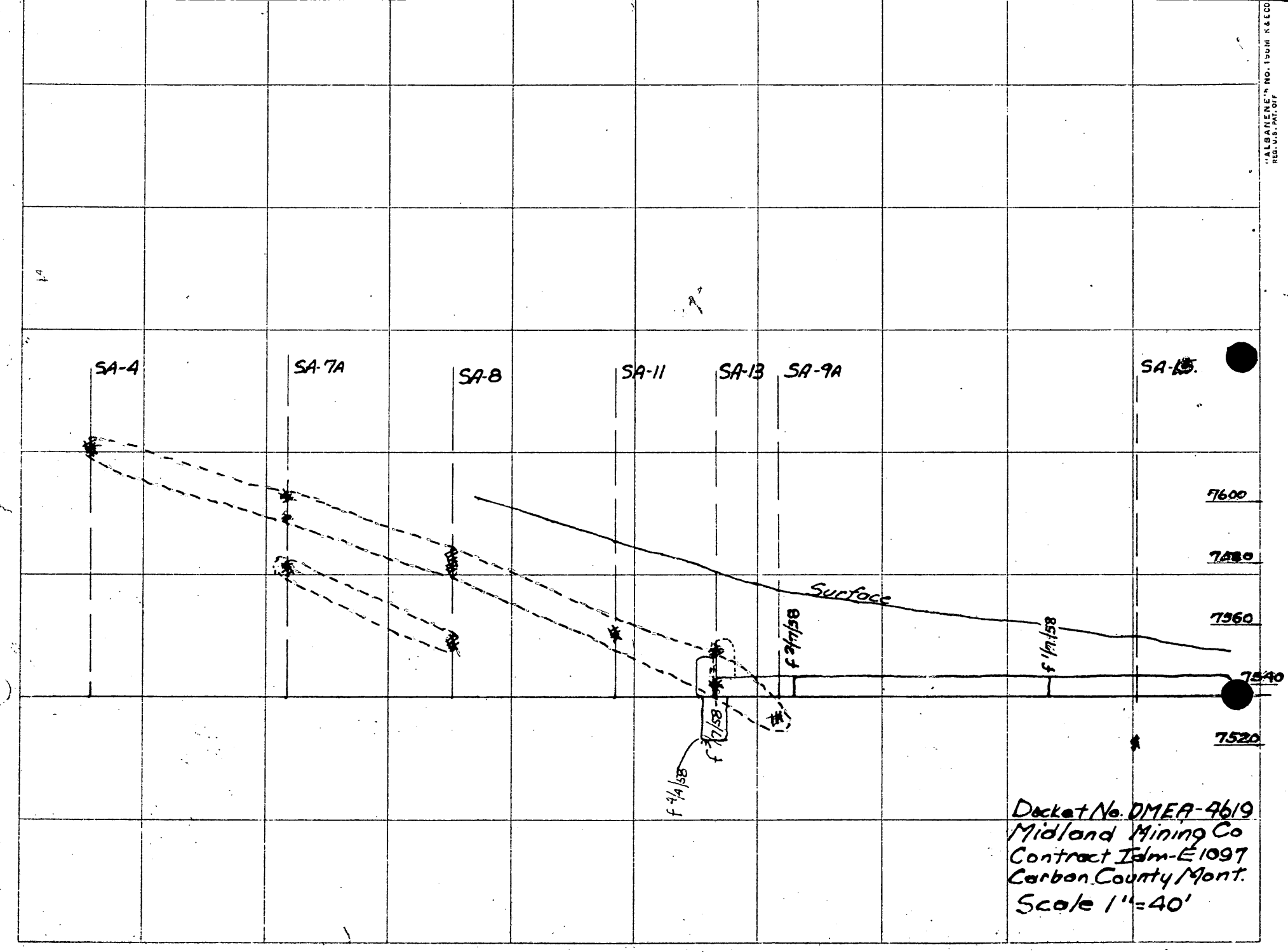


Sample No.	Width	% U_3O_8
829	6"	1.25
830	12"	1.01
831	5"	0.095

Mapped by J.A. Bowsher, U.S.B.M & W.C. Prinz, U.S.G.S., 1958.

Official File Copy
DMFA
RECEIVED APR 21 1958

DATE	INITIAL	CODE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SA-15
Surface
7600
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7520
f 3/7/58
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f 3/7/58
f 4/4/58
Docket No. DMEA-4619
Midland Mining Co
Contract Idm-E1097
Carbon County Mont.
Scale 1"=40'

DMBA
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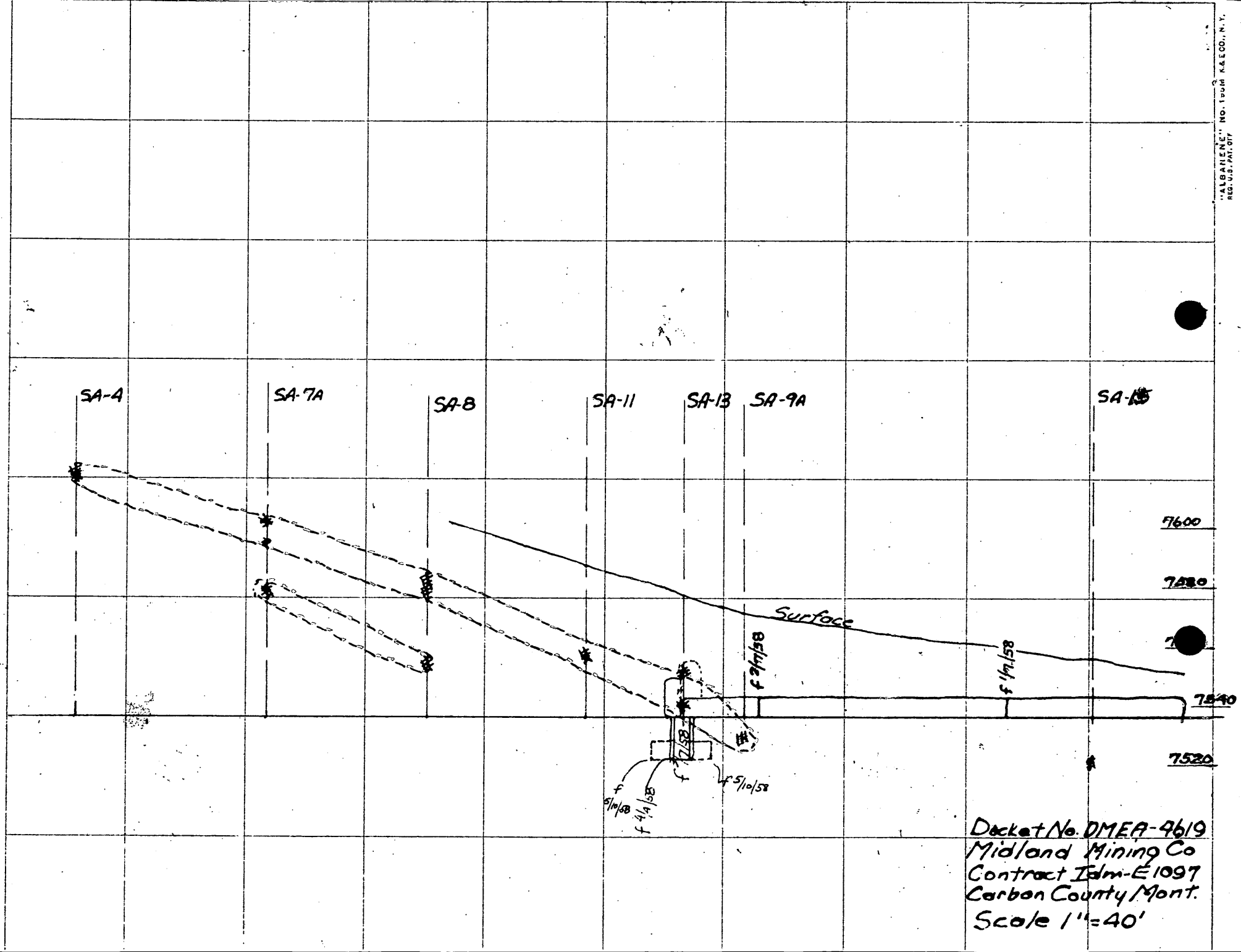
DATE		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f 1/17/58
f 5/10/58
f 5/10/58
f 4/4/58
Docket No. DMEA-4619
Midland Mining Co
Contract Idm-E1097
Carbon County Mont.
Scale 1"=40'

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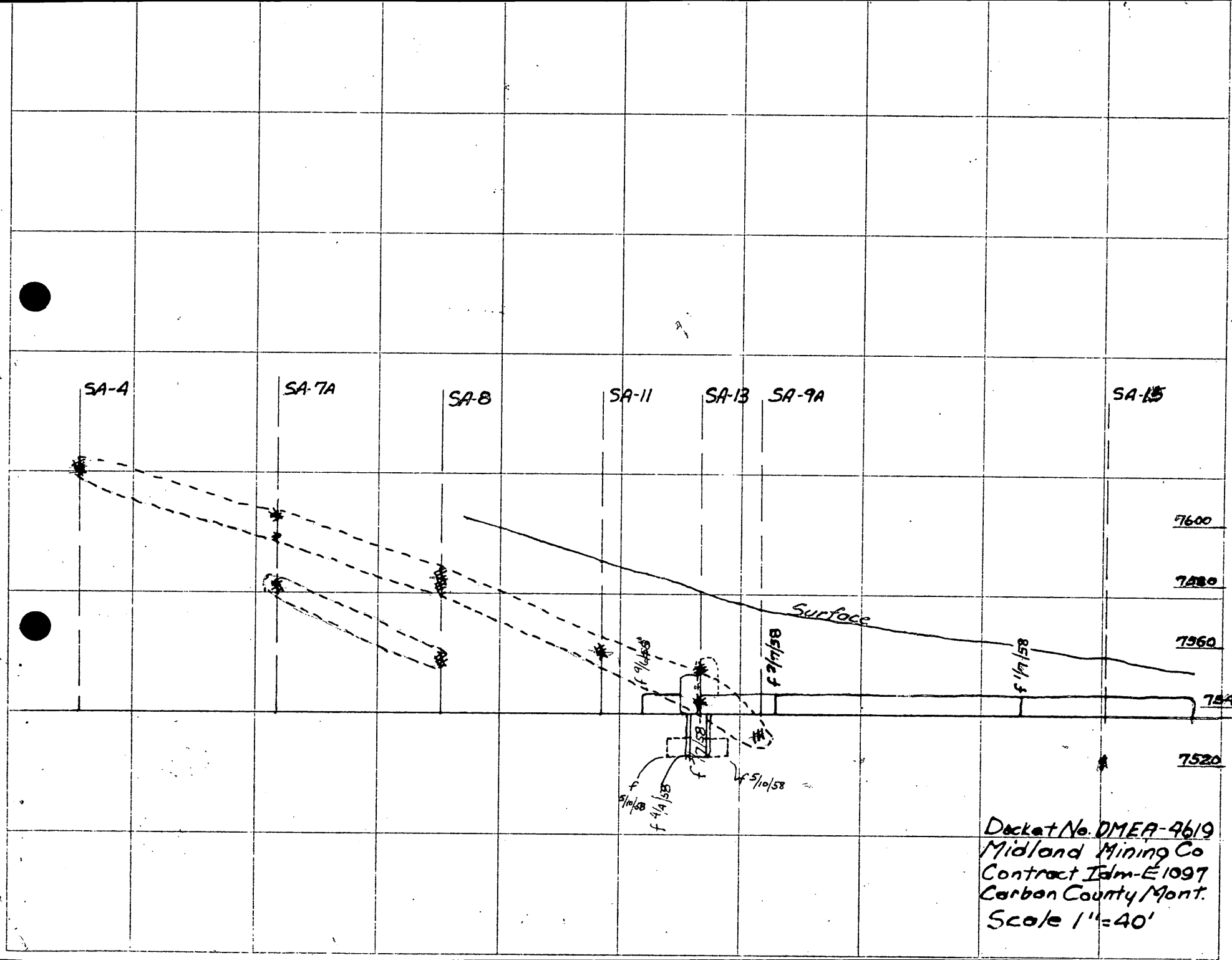
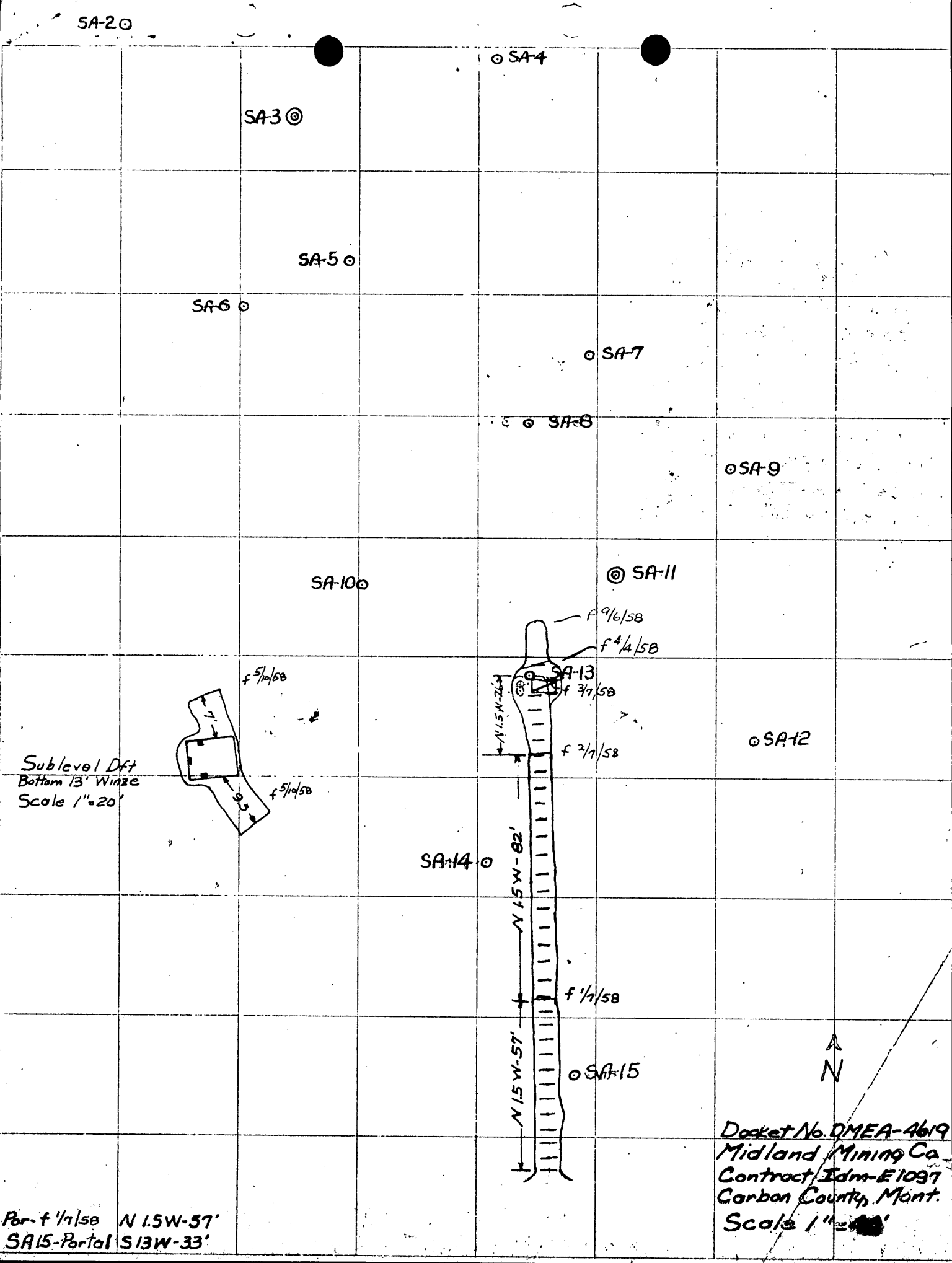


"ALBANENE" NO. 1960M K&E CO., N.Y.
REG. U.S. PAT. OFF.

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 7 1958

DATE	INITIALS	CODE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SA-14
SA-15
f 9/6/58
f 4/4/58
f 3/7/58
f 2/7/58
f 1/7/58
f 5/10/58
f 5/10/58
N 1.5 W-26'
N 1.5 W-82'
N 1.5 W-57'
7'
9.5'
Sublevel Drft
Bottom 13' Winze
Scale 1"=20'
N
Docket No. DMEA-4619
Midland Mining Co.
Contract Idm-E1097
Carbon County, Mont.
Scale 1"=[redacted]'
Por-f 1/7/58 N 1.5W-57'
SA15-Portal S13W-33'

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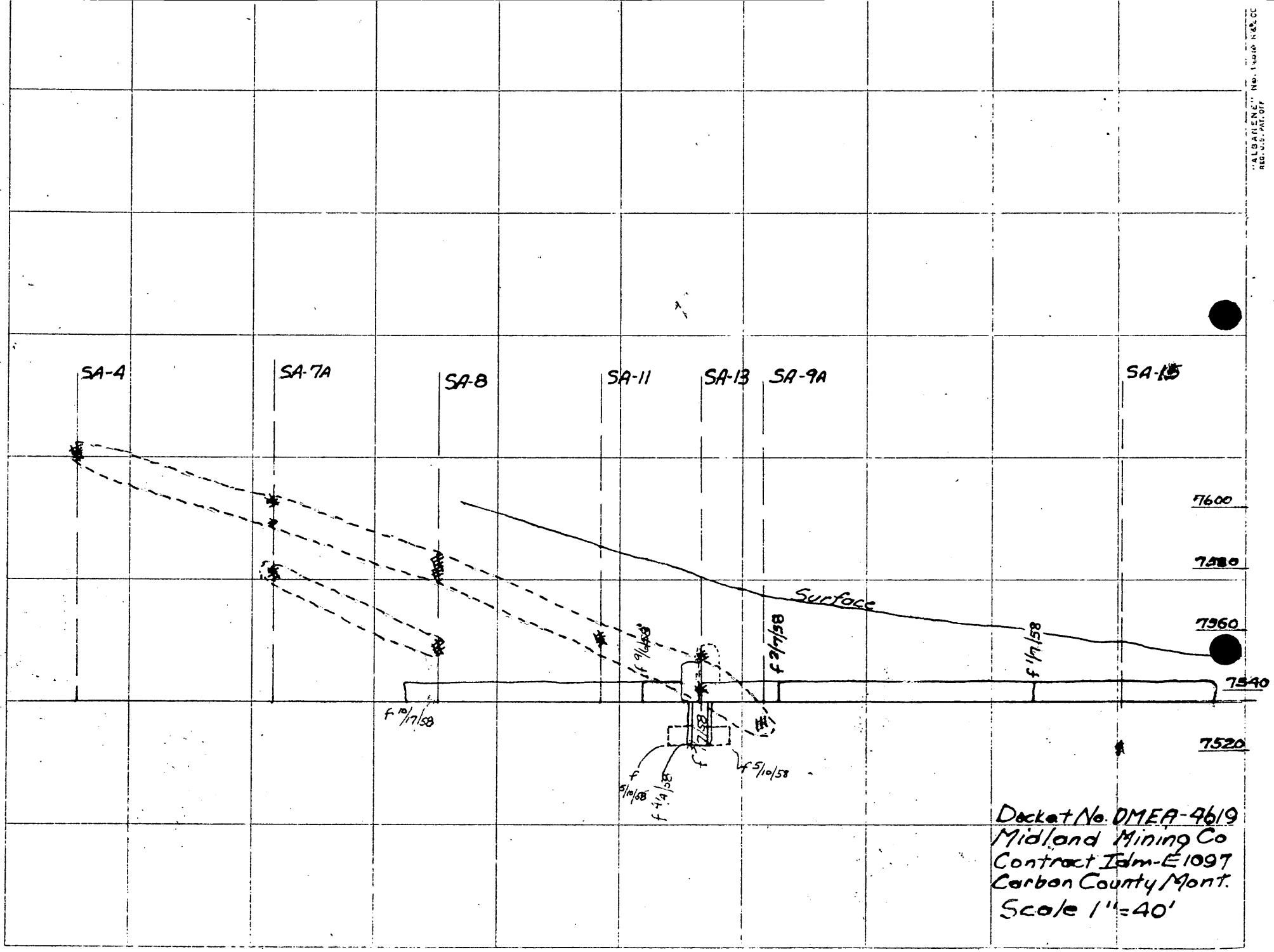
RECEIVED OCT 7 1958

DATE	INITIALS	CODE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SA-8
SA-11
SA-13
SA-9A
SA-15
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7520
Surface
f 10/7/58
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f 5/10/58
Docket No. DMEA-4619
Midland Mining Co
Contract Idm-E1097
Carbon County Mont.
Scale 1"=40'

OFFICIAL FILE COPY
C. M. E.
RECEIVED NOV 18 1958

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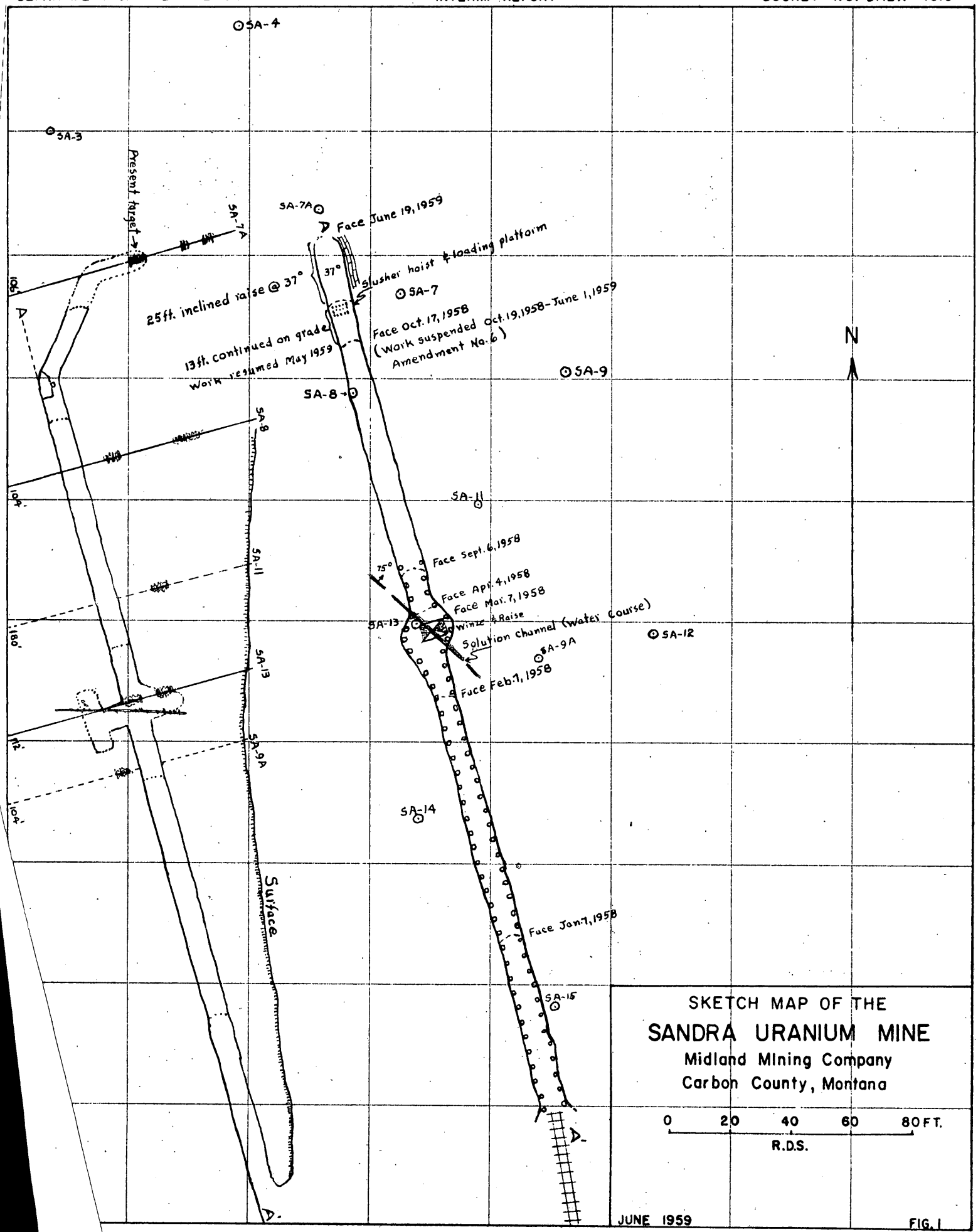
UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
OFFICE OF MINERALS EXPLORATION
INTERIM REPORT

DOCKET NO. DMEA-4619



SKETCH MAP OF THE
SANDRA URANIUM MINE
Midland Mining Company
Carbon County, Montana

0 20 40 60 80 FT.
R.D.S.

JUNE 1959

FIG. 1

"ALBANENE" No. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 13 1959

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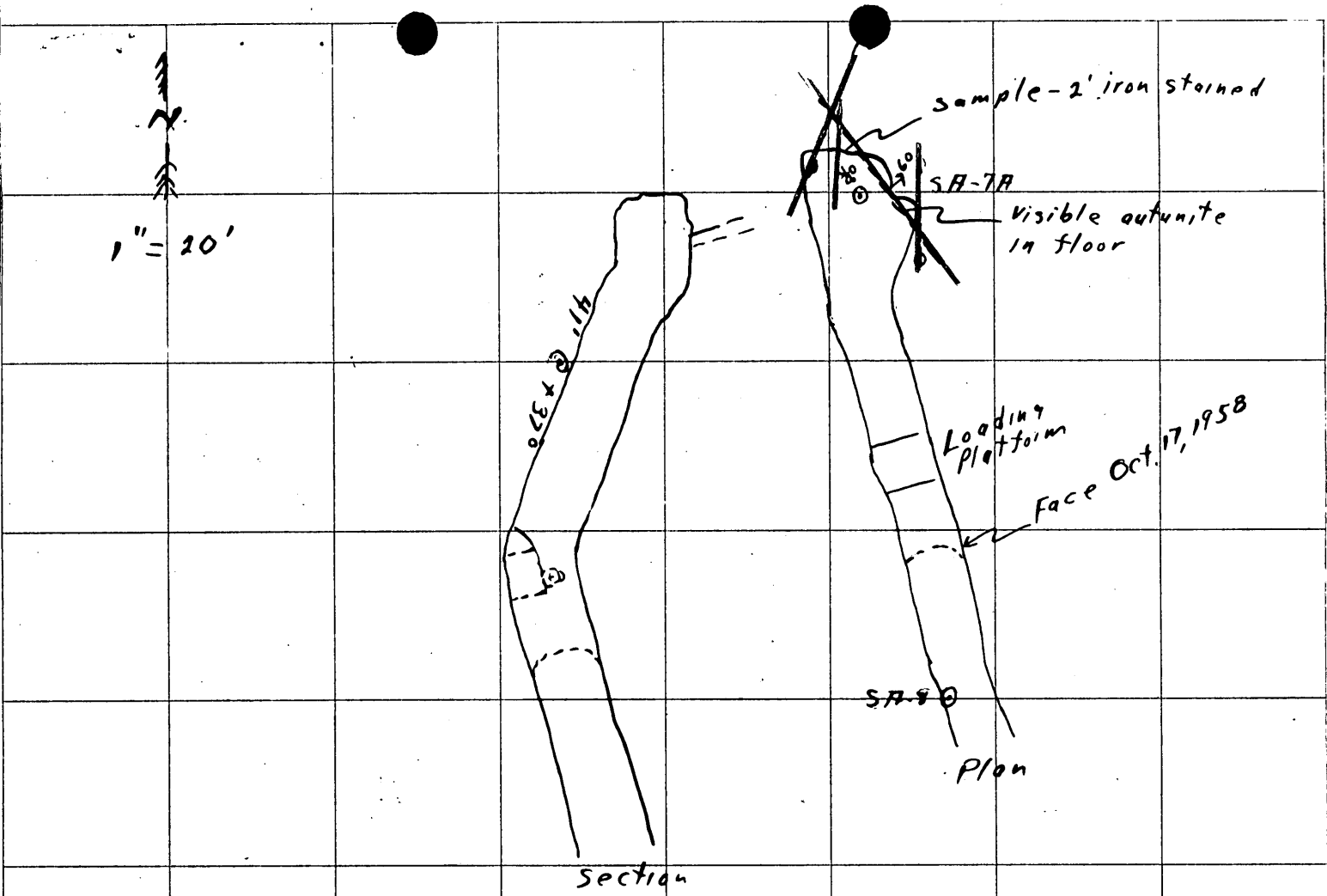


Docket No. DMEA 4619
Midland Mining Co
Garbon County, Mont

S.A.Z. July 1959

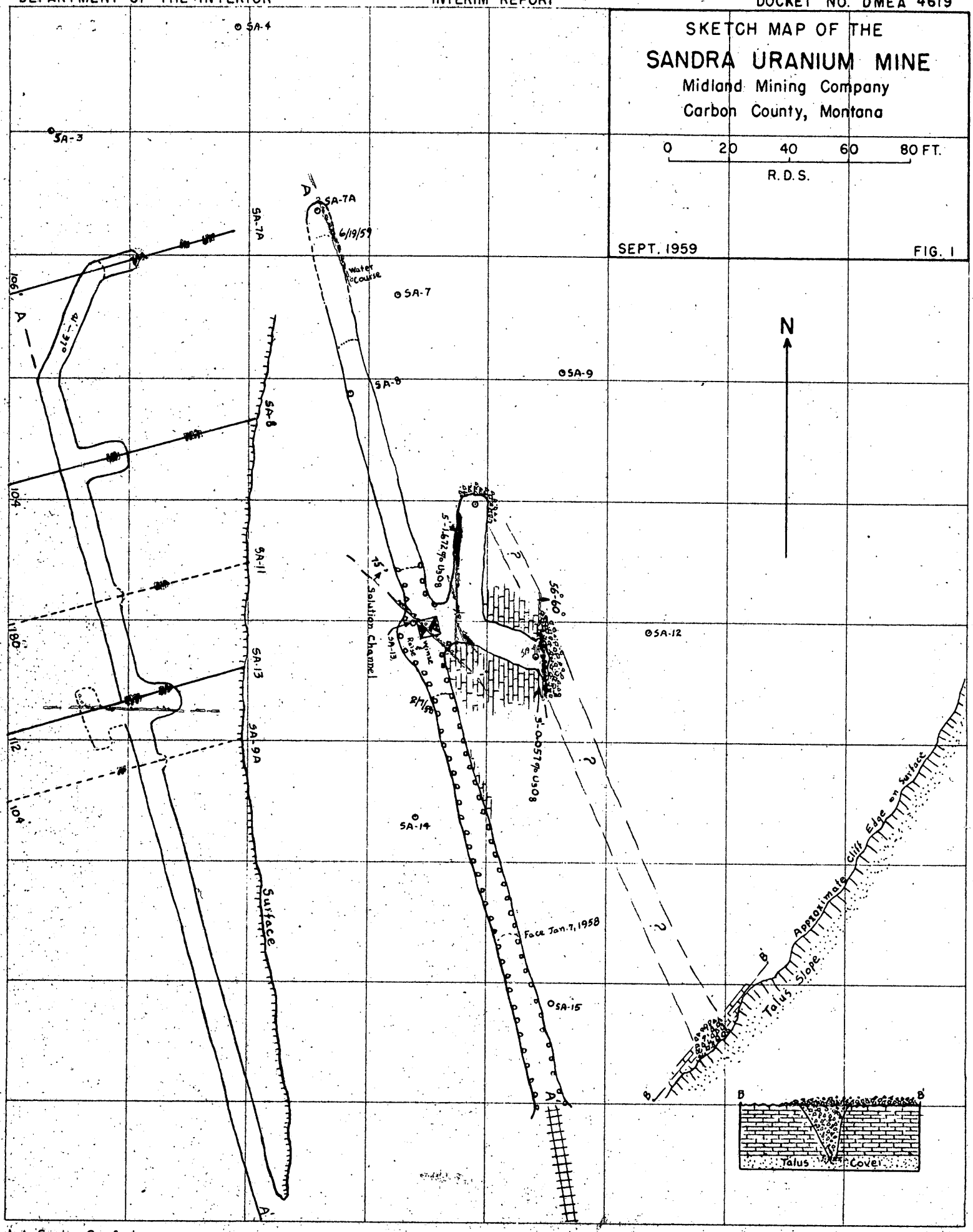
OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 4 1959

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
OFFICE OF MINERALS EXPLORATION
INTERIM REPORT

DOCKET NO. DMEA 4619

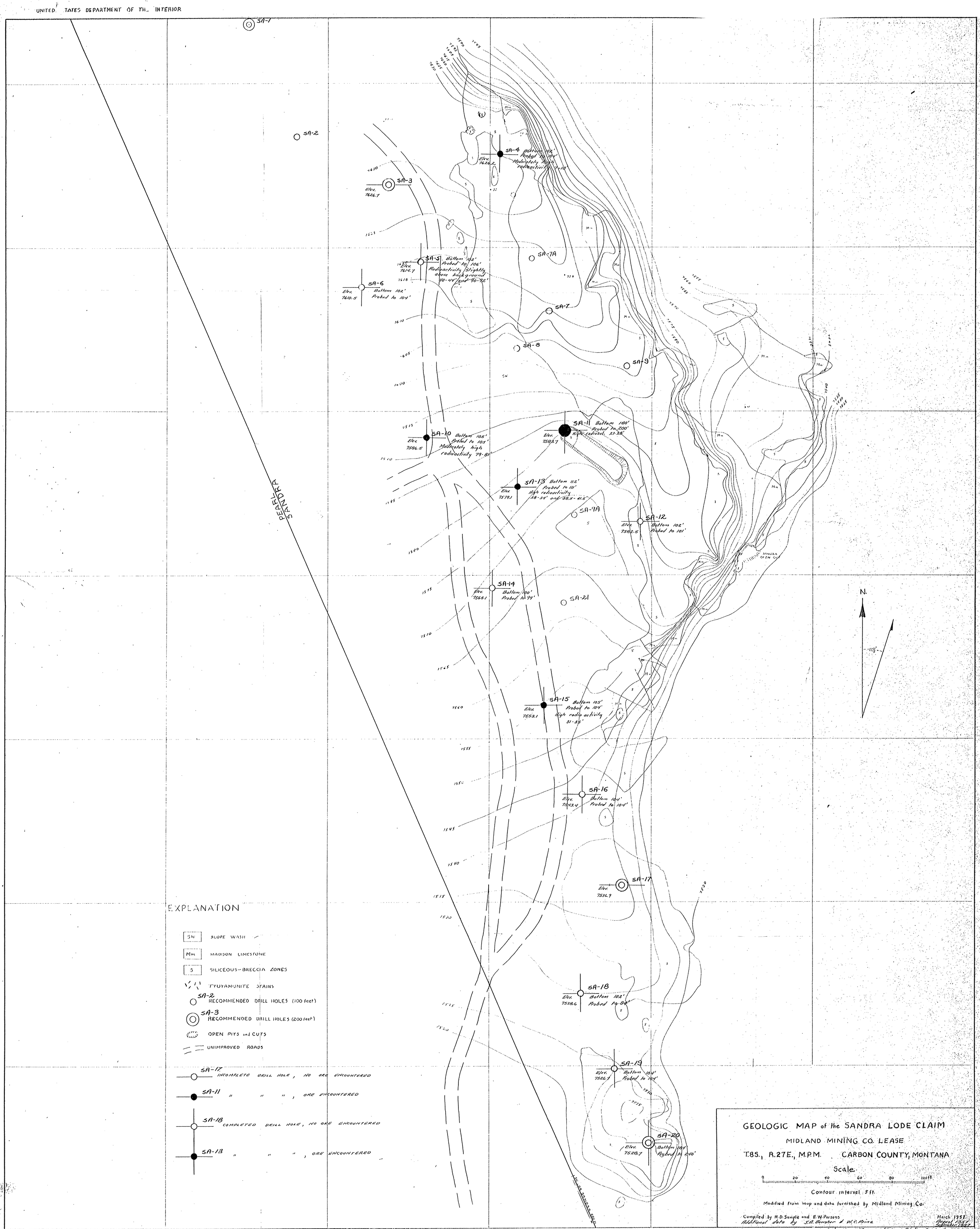


J. A. Gendron Co., Spokane

"ALBANENE" No. 186M K&E CO., N.Y.
REG. U.S. PAT. OFF.

Maps recd. with final F. I. report
Reg III memo 3/15/60

UNITED STATES DEPARTMENT OF THE INTERIOR



GEOLOGIC MAP of the SANDRA LODE CLAIM

MIDLAND MINING CO. LEASE

T.8S., R.27E., M.P.M. CARBON COUNTY, MONTANA

Scale

0 20 40 60 80 100 ft.

Contour interval 5 ft.

Modified from map and data furnished by Midland Mining Co.

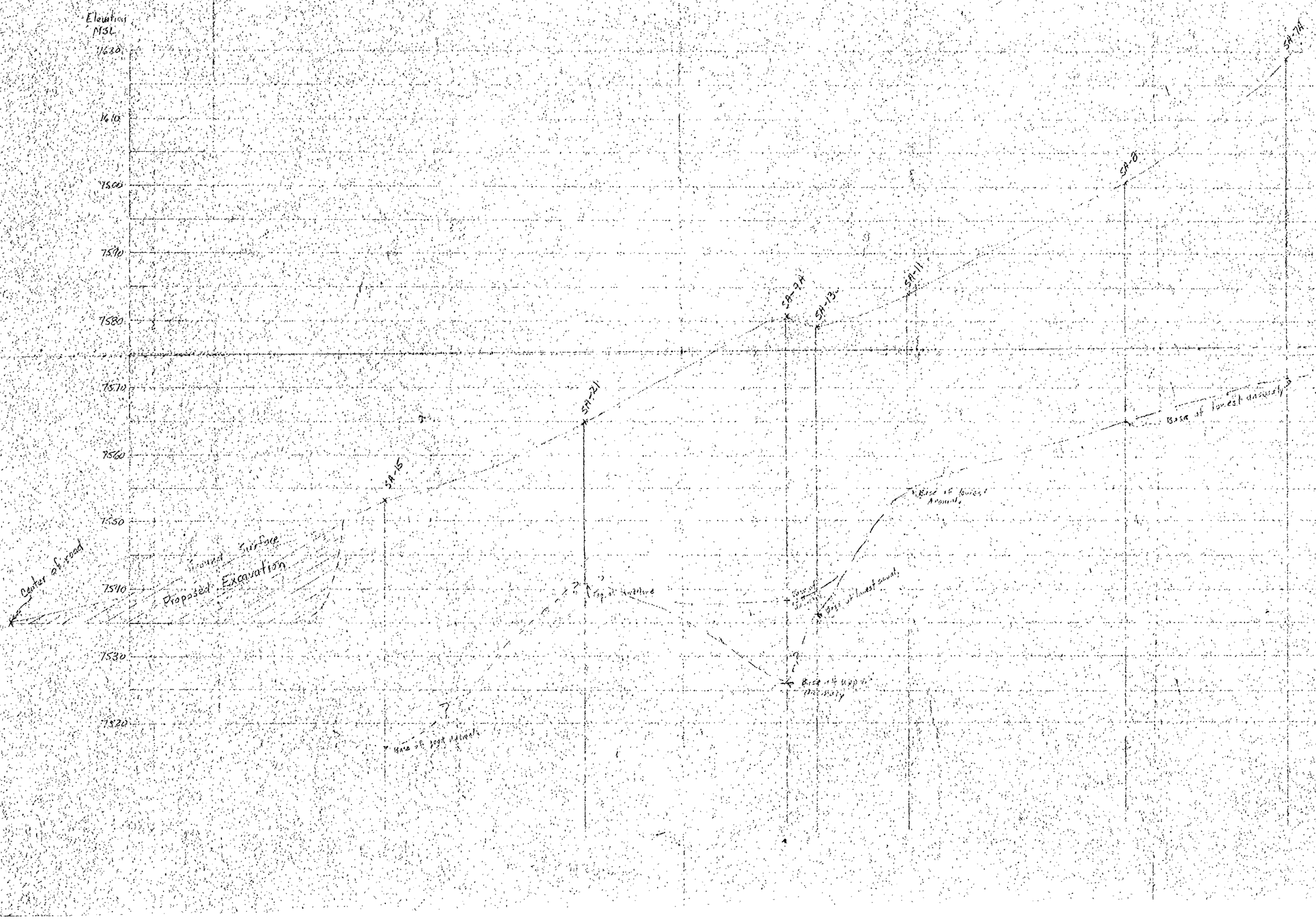
Compiled by R.D. Sample and E.W. Parsons — March 1957
Additional data by J.A. Bowser & W.C. Pinz — August 1957, September 1958

Interim Inspection Rpt. September 1957

DMEA-4619

Straight Line Cross Section - Through SA-7A & SA-15 (Proposed Tunnel Heading)
To accompany letter to DMER, Nov. 11, 1957

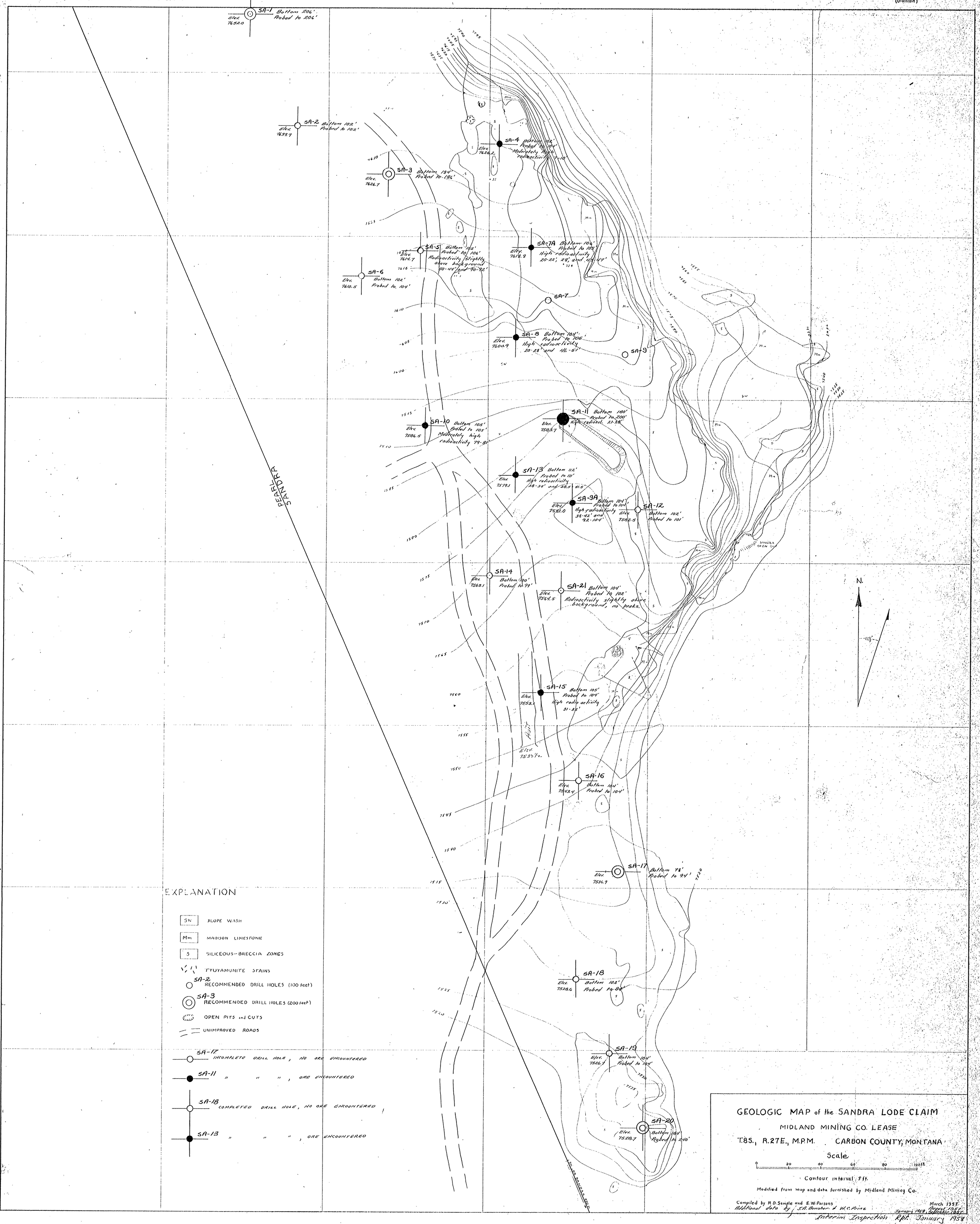
Drill holes projected at ±45 to center line Scale 1" = 9' Vertic. 20' Horiz.



UNITED STATES DEPARTMENT OF THE INTERIOR

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

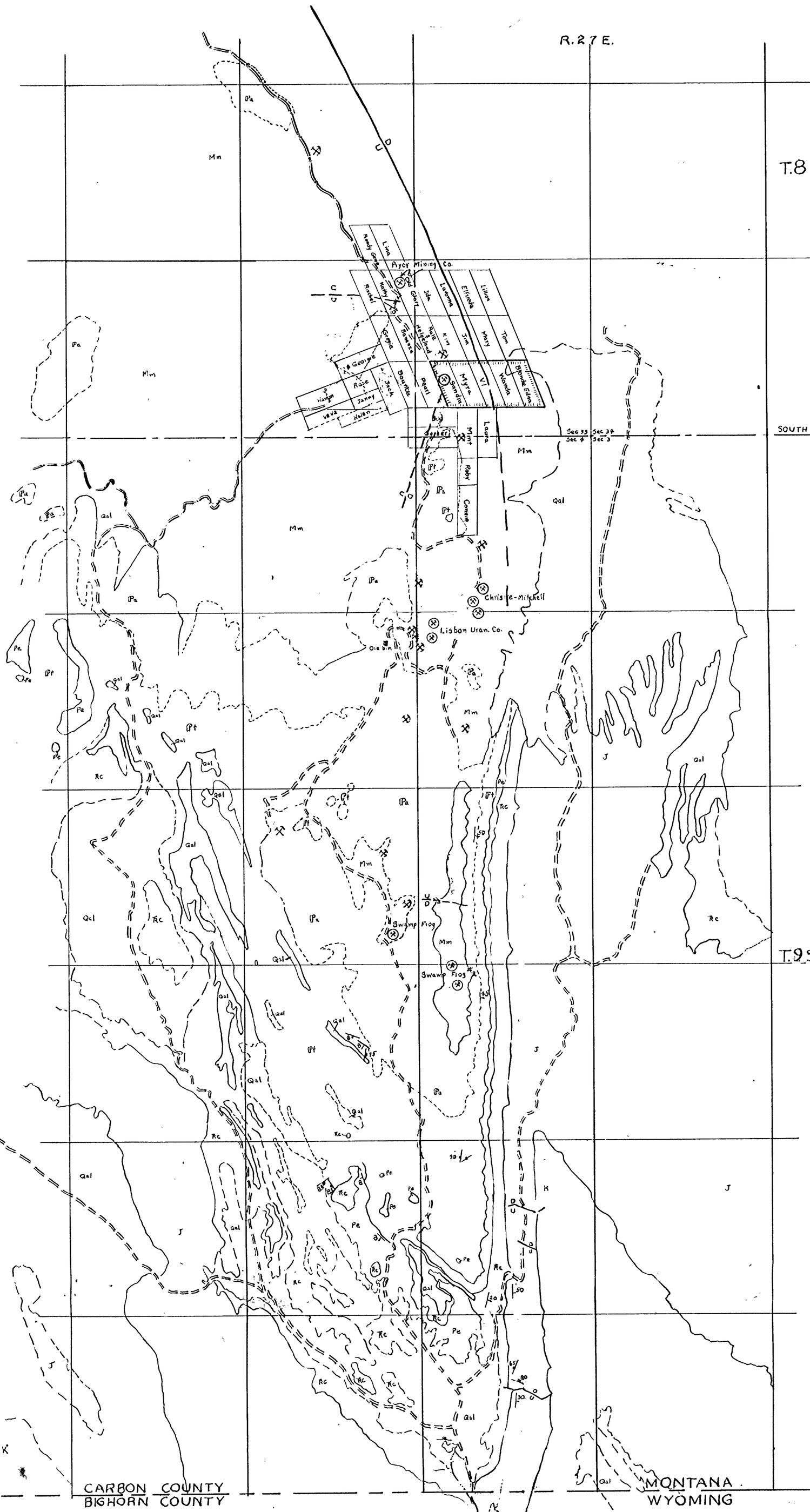
DOCKET NO. D.M.E.A. 4619
(Uranium)



UNITED STATES DEPARTMENT OF THE INTERIOR

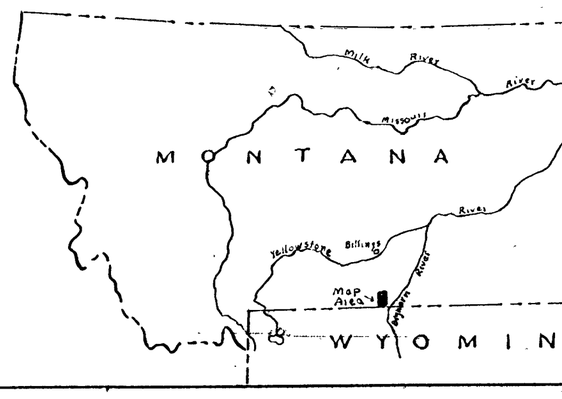
PREPARED FOR
OFFICE of MINERALS EXPLORATION
FINAL REPORT

DOCKET NO D.M.E.A.
(Uranium)



EXPLANATION

- Qal — ALLUVIUM (Undifferentia
- K — CRETACEOUS (Undiffere
- J — JURASSIC (Undifferentia
- Ꞧc — TRIASSIC CHUGWATER F
- Pe — PERMIAN EMBAR FOR
- ℙt — PENN. TENSLEEP SAND
- ℙa — PENN. AMSDEN (Undif
- Mm — MISS. MADISON LIMES
- CONTACT
- APPROXIMATE CONTACT
- FAULT
- INFERRED FAULT
- STRIKE and DIP of BEDS
- STRIKE and DIP of JOINT
- ROADS
- PROSPECT
- PROSPECT and MINE WORKI
- LODE CLAIMS of PRYOR MIN ON BIG PRYOR MOUNT
- LODE CLAIMS LEASED MIDLAND MINING (Sandra Group)



NOTE

Map compiled with slight modifications from the following sources:

Photogeologic Compilation (incomplete) by Leo F. Fay, William D. Fleming, and Olin M. Hart
U.S. Atomic Energy Commission January 1957

Geological Map of the Pryor Mountains, Montana by Donald L. Blackstone, Jr., 1931-1935

Applicants claim map of Pryor Mining Company Jan. 1957

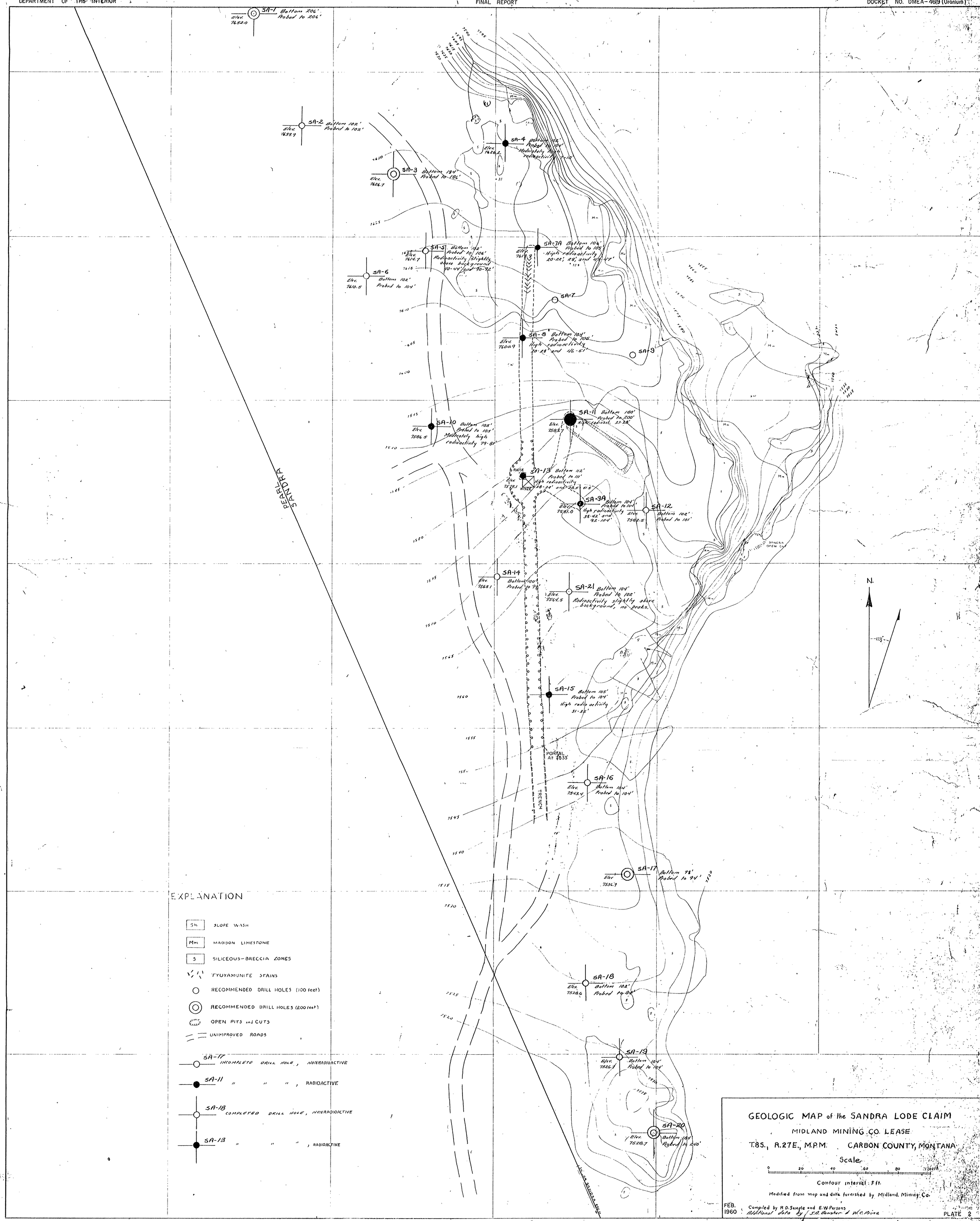
GEOLOGIC MAP
SOUTHERN PORTION of BIG PRYOR MOUN
SHOWING SANDRA GROUP of CLAIMS

MIDLAND MINING COMPANY
Carbon County, Montana

0 — 1 MI.
R.D.S.

FEB. 1960

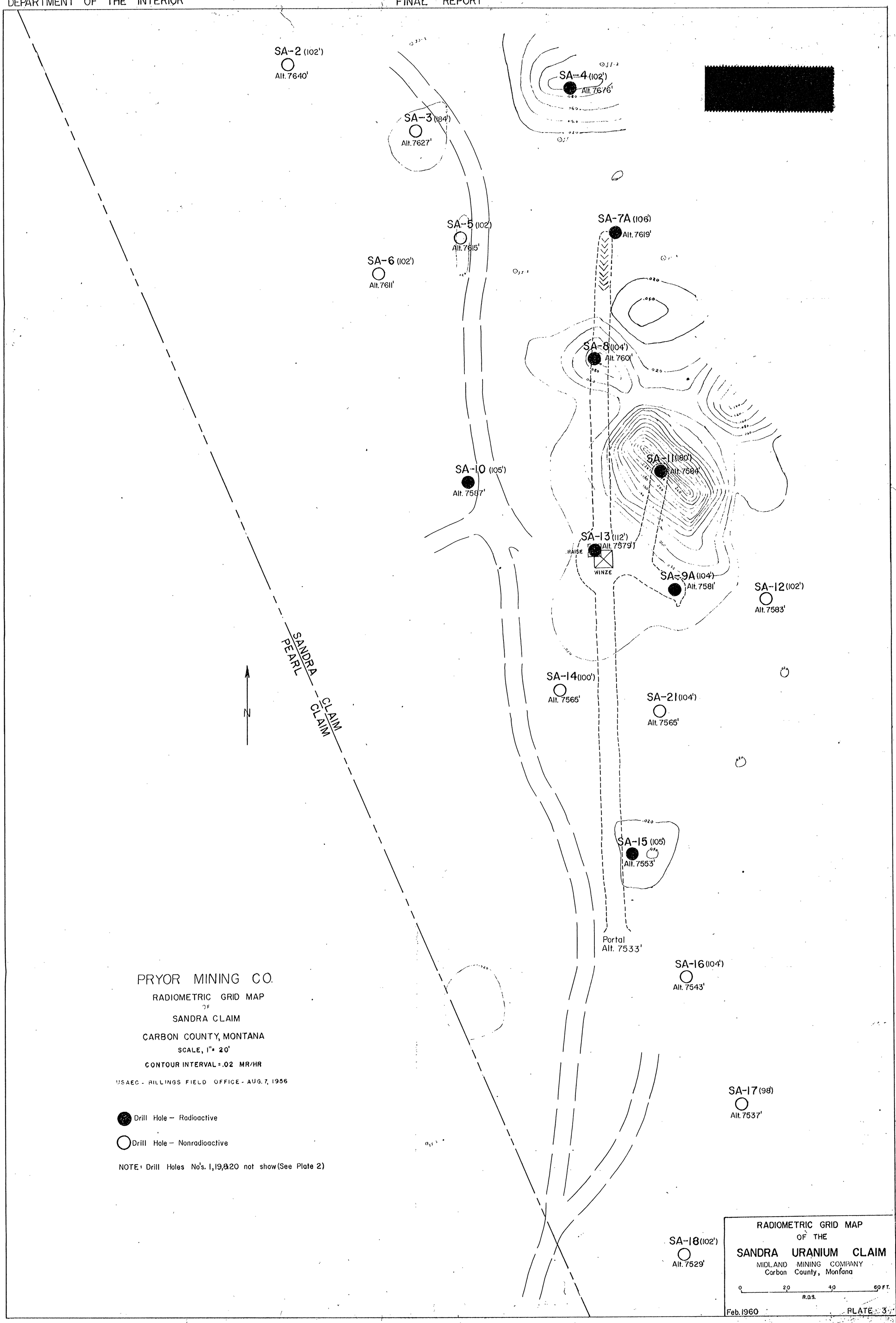
PI


SA-1 Bottom 206' Probed to 206'
Elev. 7652.0
SA-2 Bottom 102' Probed to 102'
Elev. 7637.9
SA-3 Bottom 194' Probed to 196'
Elev. 7626.7
SA-4 Bottom 104' Probed to 104' Moderately high radioactivity 7-10'
Elev. 7626.2
SA-5 Bottom 102' Probed to 106' Radioactivity slightly above background 90-114' and 90-92'
Elev. 7614.7
SA-6 Bottom 102' Probed to 104'
Elev. 7610.5
SA-7A Bottom 104' Probed to 105' High radioactivity 20-22', 28', and 116-117'
Elev. 7619.3
SA-7
SA-8 Bottom 104' Probed to 105' High radioactivity 20-28' and 116-51'
Elev. 7600.9
SA-9
SA-10 Bottom 105' Probed to 105' Moderately high radioactivity 79-81'
Elev. 7586.5
SA-11 Bottom 180' Probed to 200' High radioact. 27-28
Elev. 7583.7
SA-13 Bottom 112' Probed to 111' High radioactivity 28-34' and 38.5-41.5'
Elev. 7569.1
RAISE
WINZE
SA-9A Bottom 104' Probed to 104' High radioactivity 38-42' and 92-104'
Elev. 7581.0
SA-12 Bottom 102' Probed to 101'
Elev. 7582.5
SANDRA OPEN CUT
SA-14 Bottom 100' Probed to 98'
Elev. 7565.1
SA-21 Bottom 104' Probed to 102' Radioactivity slightly above background, no peaks.
Elev. 7564.5
SA-15 Bottom 105' Probed to 104' High radio activity 31-35'
PORTAL Alt. 7633'
TRENCH
SA-16 Bottom 104' Probed to 104'
Elev. 7543.4
SA-17 Bottom 98' Probed to 94'
Elev. 7536.9
SA-18 Bottom 102' Probed to 94'
Elev. 7528.6
SA-19 Bottom 104' Probed to 104'
Elev. 7526.1
SA-20 Bottom 184' Probed to 240'
Elev. 7528.7
PEARL
SANDRA
N.
EXPLANATION
SW SLOPE WASH
Mm MADISON LIMESTONE
S SILICEOUS-BRECCIA ZONES
TYUYAMUNITE STAINS
RECOMMENDED DRILL HOLES (100 feet)
RECOMMENDED DRILL HOLES (200 feet)
OPEN PITS and CUTS
UNIMPROVED ROADS
SA-17 INCOMPLETE DRILL HOLE, NONRADIOACTIVE
SA-11 " " " , RADIOACTIVE
SA-18 COMPLETED DRILL HOLE, NONRADIOACTIVE
SA-13 " " " , RADIOACTIVE
GEOLOGIC MAP of the SANDRA LODE CLAIM
MIDLAND MINING CO. LEASE
T.8S., R.27E., M.P.M. CARBON COUNTY, MONTANA
Scale
0 20 40 60 80 100 ft.
Contour interval: 5 ft.
Modified from map and data furnished by Midland Mining Co.
FEB. 1960
Compiled by R.D. Sample and E.W. Parsons
Additional data by J.A. Boucher & W.C. Prinz
PLATE 2

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
OFFICE of MINERALS EXPLORATION
FINAL REPORT

Docket No D.M.E.A. 4619
(uranium)



PRYOR MINING CO.
RADIOMETRIC GRID MAP
OF
SANDRA CLAIM
CARBON COUNTY, MONTANA
SCALE, 1" = 20'
CONTOUR INTERVAL = .02 MR/HR
USAEC - BILLINGS FIELD OFFICE - AUG. 7, 1956

RADIOMETRIC GRID MAP
OF THE
SANDRA URANIUM CLAIM
MIDLAND MINING COMPANY
Carbon County, Montana

Feb. 1960 PLATE 3

UNITED STATES DEPARTMENT OF THE INTERIOR

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXAMINATION REPORT

DOCKET NO. D.M.E.A. 4619
(Unknown)

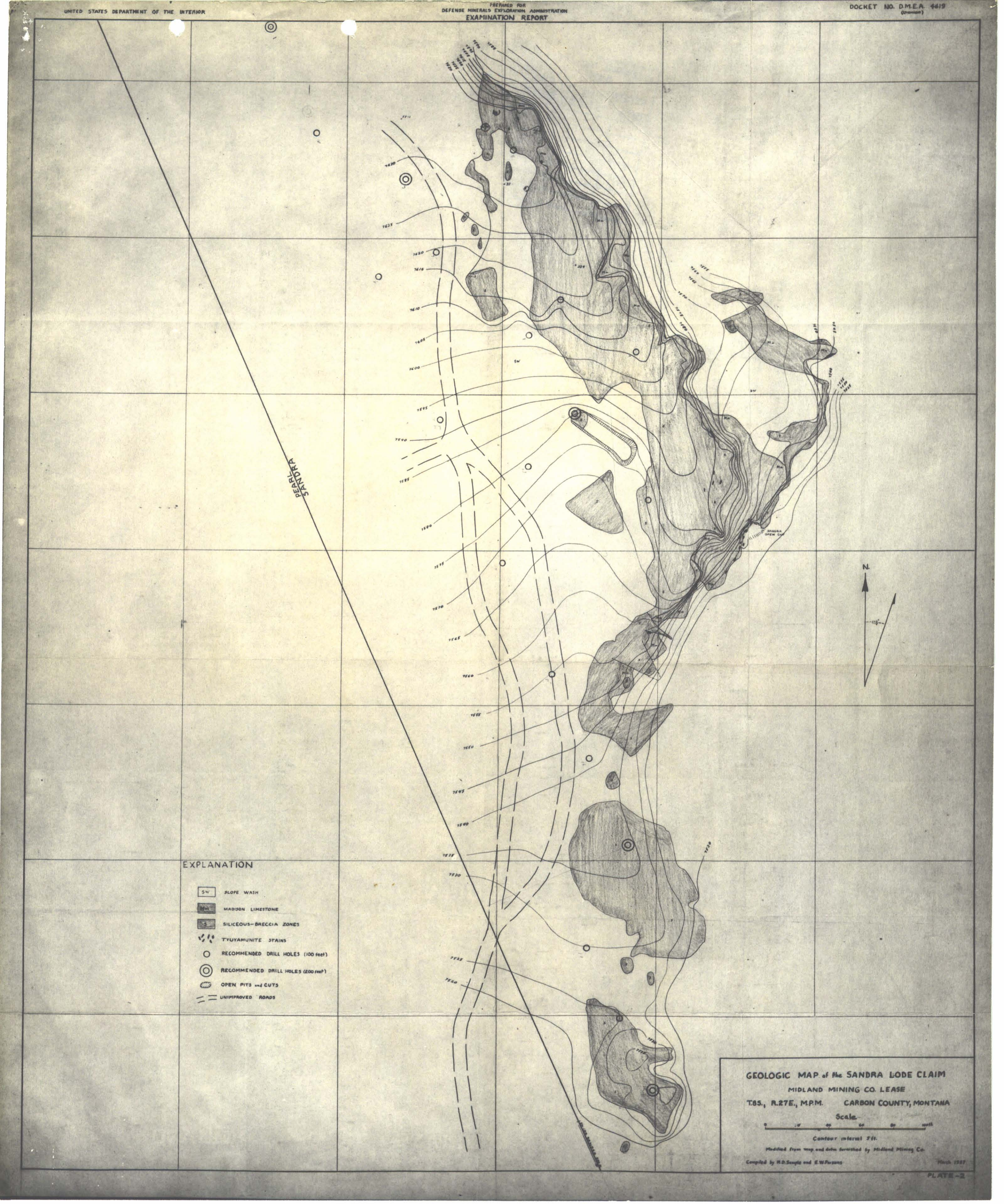
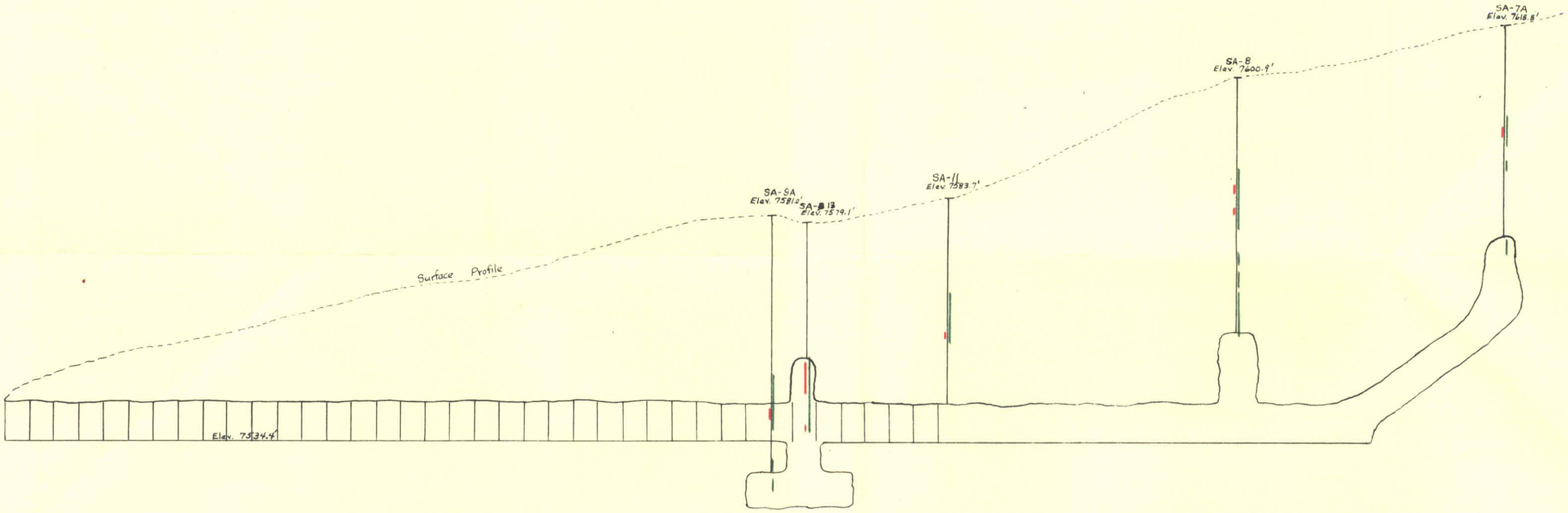
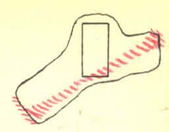


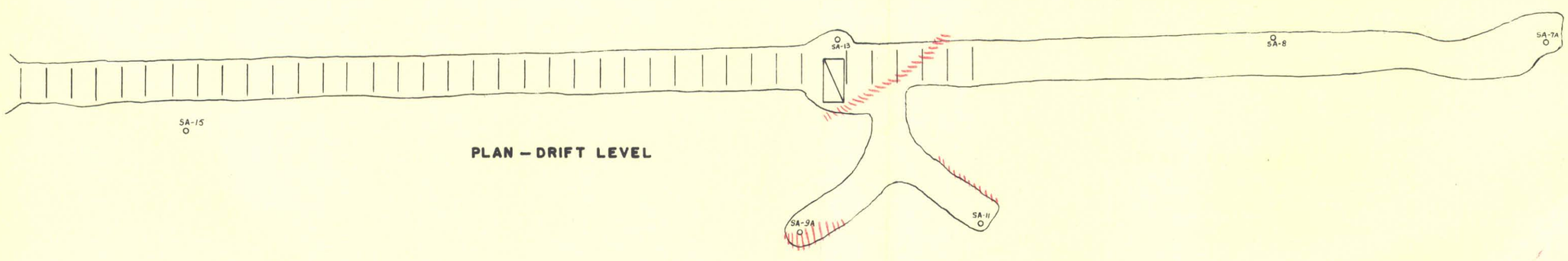
PLATE-2



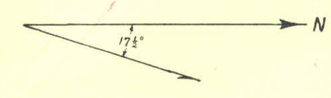
VERTICAL SECTION



PLAN – WINZE LEVEL



PLAN – DRIFT LEVEL



Radiometric anomaly greater than .05 MR/hr. in drill hole

Radiometric anomaly greater than .20 MR/hr. in drill hole

Ore grade mineralization in underground workings

SANDRA MINE

SECTION 33, T. 8 S., R. 27 E.

CARBON CO., MONT.

Scale 1" = 20'

C.M. Houptman Feb. 15, 1960

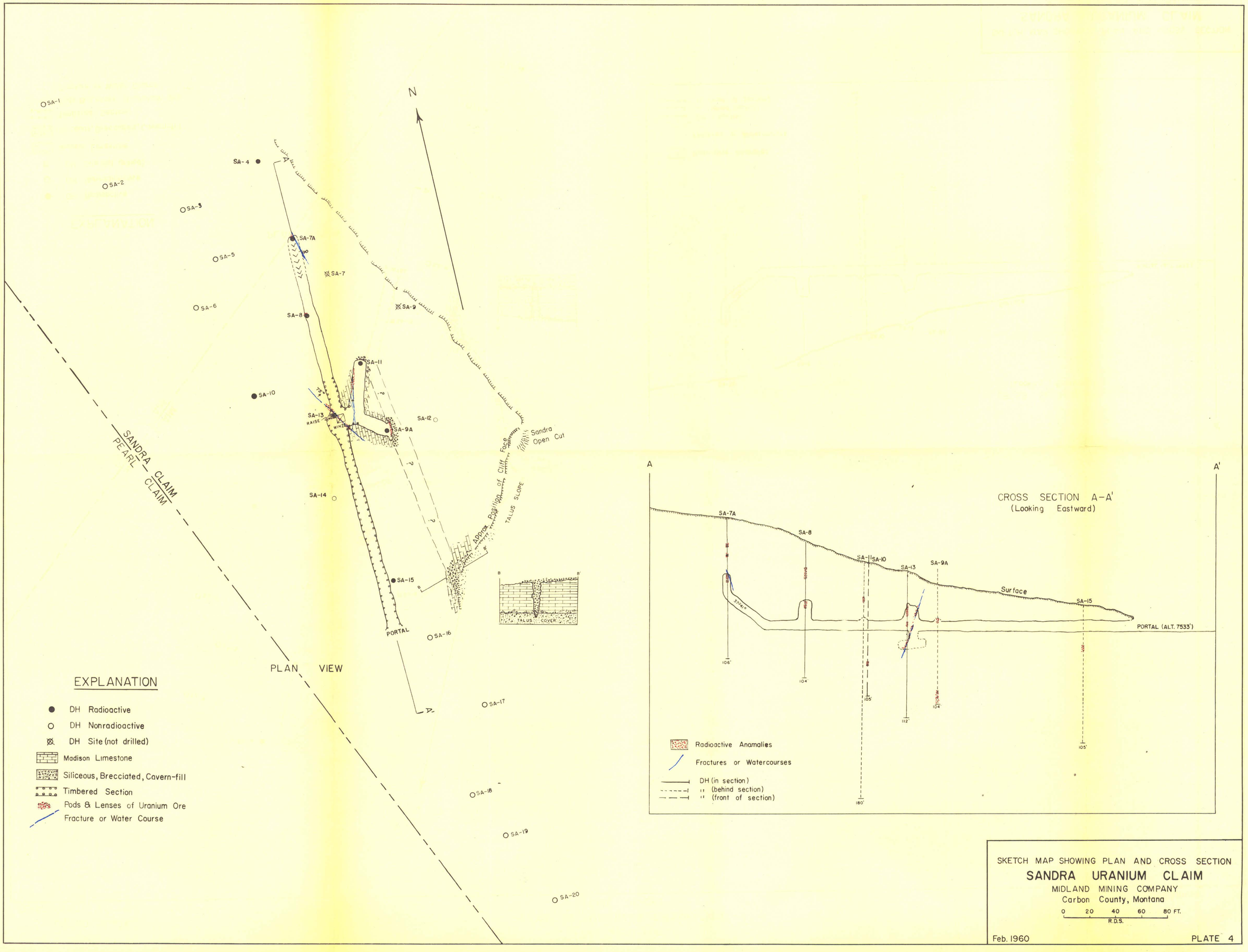
MIDLAND MINING CO.
BILLINGS, MONT.

DMEA – 4619

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
OFFICE OF MINERALS EXPLORATION
FINAL REPORT

DOCKET NO. DMEA-4619 (Uranium)



SKETCH MAP SHOWING PLAN AND CROSS SECTION
SANDRA URANIUM CLAIM
MIDLAND MINING COMPANY
Carbon County, Montana
0 20 40 60 80 FT.
R.D.S.

Feb. 1960

PLATE 4