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START

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Office of Minerals Exploration, Washington, D. C., pertaining to Contract No. Idm-3926, Docket No. DMEA-3928 (Uranium), dated March 9, 1956, with

Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Blvd.
Beverly Hills, California

for the purpose of determining the amount of royalty due the U. S. Government on sales of minerals from property referred to as Green River claims located in Emery County, Utah, during the period March 9, 1956, through November 30, 1959.

A certification of discovery or development was issued on May 8, 1957, and, in accordance with Amendment No. 5 of the contract, royalty is payable on all minerals mined or produced from the land described in Article 2 of the contract for a period of 12 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review in lieu of final audit dated March 19, 1959, indicated accepted costs under the exploration contract amounting to $50,208.18 with the Government's contribution, on a 75 percent basis, being $22,656.14.

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

This review established the total value of production for the period to be $96,473.18, consisting of $77,915.58 for U_3O_8 and V_2O_5 produced through April 1959 and $18,557.60 for uranium ores produced thereafter. Royalty due the Government at rates specified in the contract is $4,823.65. The royalty paid and the balance due are as follows:

Total Royalty Due	$4,823.65
Total Royalty Paid	4,823.65
Balance of Royalty Due	$ -0-

C. E. Fisher
C. E. Fisher, OME Auditor

August 16, 1960

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

No production was accomplished by the Operator named in the contract who assigned its interest to Union Carbide Corporation on March 21, 1958. Subsequently production was accomplished by Vitro Uranium Company under a working agreement with Union Carbide Nuclear Co., a subsidiary of Union Carbide Corporation. Royalty was initially paid on the basis of the value of the ore mined and delivered to Union Carbide Nuclear Co. determined according to A.E.C. schedule through April 1959. Royalty due to the Government was subsequently recomputed based on the value of U_3O_8 and V_2O_5 recovered and sold by Union Carbide Nuclear Co. and proper additional royalty was paid to the Government.

Subsequent to April 1959 the production from the mine has become the property of Vitro Uranium Company under terms of the working agreement. Royalty due to the Government has been computed and paid on the basis of the value of the ore determined according to the A.E.C. schedule.

In a letter dated June 20, 1960, the Chief, Leasing and Development Branch, Production Evaluation Division of the Grand Junction office of the A.E.C., advised that no application for certification of these claims had been received by that office by April 18, 1960, the last date for making such application. Thus, no initial production bonus is payable on production from this property.

My review included a tabulation and recomputation of copies of settlement data received in support of royalty payments. This tabulation is included among my audit work-papers and the results are summarized in the attached Schedule "A".

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

(1) Inspection reports by field representatives of the Government and other correspondence in the Washington office files indicate that all production through November 1959 has been reported and proper royalty has been paid to the Government;
(2) There has been no production from the property subsequent to November 1959; and
(3) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

Schedule "A"

Idm-E926 | Pacific Uranium Mines Company | DMEA-3928

Summary of Production, Value and Royalty

Production	3/9/56 to 4/30/59	5/1/59 to 11/30/59	3/9/56 to 11/30/59
Crude Ore - SDT	1,595.67	1,198.43	2,794.10
Assays			
U_3O_8 - Pounds	10,291.51	4,725.45	15,016.96
" - " - in excess 4#/SDT	3,908.83	362.98	4,271.81
V_2O_5 - Pounds	17,811.59	3,151.47	20,962.86
Packed			
U_3O_8 (Average recovery = 78.08%)	8,035.61		
V_2O_5 (" " = 36.89%)	6,569.81		
Value of Production			
U_3O_8 - Base	$36,020.30	$14,945.67	$50,965.97
" - Premium in excess 4#/SDT	2,931.63	272.23	3,203.86
" - Development allowance	5,145.77	2,362.74	7,508.51
" - Processing gain	25,940.68	-0-	25,940.68
" - AEC bonus	-0-	-0-	-0-
	$70,038.38	$17,580.64	$87,619.02
V_2O_5 - Base	$ 5,521.52	$ 976.96	$ 6,498.48
" - Processing gain	2,355.68	-0-	2,355.68
	$ 7,877.20	$ 976.96	$ 8,854.16
Total value	$77,915.58	$18,557.60	$96,473.18
Royalty due	$ 3,895.77	$ 927.88	$ 4,823.65
Royalty paid	$ 3,895.77	$ 927.88	$ 4,823.65

MME Form 22
April 59

DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 15 1960

DATE	INITIALS	CODE
~~Docket~~	No. ~~3928~~	

CHECK SHEET OF EXAMINING ENGINEER

Operator's Name Pacific Uranium Mines Co. -- Contract Assigned to Union Carbide Nuclear Co.

Address P. O. Box 1049

Grand Junction, Colorado

Exploration Contract No. Idm E926

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

8-11-60
Date

Hugh M. Connors
Mining Engineer

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

MAR 23 1959
O.M.E.

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Pacific Uranium Mines Company
122½ South Vermont Avenue
Los Angeles 4, California

pertaining to Exploration Project Contract No. Idm-E926, DMEA No. 3928, including Amendments Nos. 1 through 5, for the months of April 1956, to August 1956, inclusive, covering a project for the exploration of Uranium on property known as Green River Group of Claims located in Emery County, Utah.

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

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

Total cost as billed by Contractor		$30,473.19
Exceptions: (Schedule attached)		
Prior to this review	$ 10.88	
Less: Reinstatement by review	0.00	
Herewith	254.13	265.01
Total Accepted Cost		$30,208.18

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Twenty Two Thousand Six Hundred Fifty-six and 14/100th Dollars is valid and proper, provided that the Regional Executive Officer, the Director, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

Amount payable to Operator	$22,656.14
Amount reimbursed	22,346.74
Balance due Operator	$ 309.40

Od. 4/1/59 th. opr.

Donald T. Finch

March 19, 1959

Donald T. Finch
CME Auditor

REASONS FOR REPORT OF REVIEW IN LIEU OF FINAL AUDIT

Contract Idm-E926 Docket No. DMEA 3928

PACIFIC URANIUM MINES COMPANY

(a) The monthly reports were supported by documentary proof of that portion ($28,323.25) of the costs which covered work performed at unit rates under independent contract (per summary attached).

(b) The balance ($1,884.93) of the costs incurred were under a contract provision for payment by the Government on the basis of fixed unit costs of work actually performed; and

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

SCHEDULE OF EXCEPTIONS

Contract Idm-E926 | Docket No. DMEA 3928

PACIFIC URANIUM MINES COMPANY

Prior Disallowances by Field Team, Region III

3 ft. of Core Drilling at $3.50/ft. claimed for Hole No. M-4 in excess of footage shown by lithographic log (Stage II)	$ 10.50	
Incidental Allowance at $0.125/ft. applicable to foregoing 3 ft.	.38	
Total Prior Disallowances		$ 10.88

Disallowances During Review

7½ hours truck time charged to Stage II bulldozing which was not authorized by Exploration Contract	$ 71.07	

The following Core Drilling footage claimed was in excess of the applicable lithographic log. All excess applicable to Stage I:

Hole No.	Footage claimed	Footage per log	Difference
D-1	319.50	319.80	.30
D-24	181.50	181.60	.10
D-2	379.00	377.00	2.00
D-19	198.00	153.00	45.00
D-20	305.50	305.80	.30
D-25	265.00	265.30	.30
D-30	333.50	333.00	.50
D-31	397.00	392.00	5.00
D-34	363.00	364.00	1.00

Net excess core footage at $3.50/ft 50.50 Ft.	$176.75	
Incidental Allowance at $0.125/ft. applicable to the foregoing 50.50 ft.	6.31	
Total Disallowance during Review		$254.13
Total Disallowances		$265.01

The Executive Officer of the Field Team, Region III, and the Auditor concur with the foregoing disallowances.

SUMMARY OF DOCUMENTED COSTS

Contract Idm-E926 | Docket No. DMEA 3928

PACIFIC URANIUM MINES COMPANY

	Stage I	Stage II	Total
Independent Contracts			
Bulldozing			
20 hours at $11.00/hr.	$ 220.00		
25.5 hours at $10.00/hr.		$ 255.00	
Total Bulldozing			$ 475.00
Drilling			
Non-core			
7,338 ft. at $1.50/ft.	$11,007.00		
3,517 ft. at $1.50/ft.		$ 5275.50	
Total Non-core Drilling			$16,282.50
10,855			
Core			
2,170.50 ft. at $3.50/ft.	$ 7,596.75		
1,134 ft. at $3.50/ft.		$ 3,969.00	
3,304.5 Total Core Drilling			$11,565.75
Total Documented Costs	$18,823.75	$ 9,499.50	$28,323.25
Fixed Unit Costs			
Chemical Analyses			
15 at $5.00/each	$ 75.00		
23 8 at $5.00/each		$ 40.00	
Incidental Allowance			
9,508.5 ft. of accepted Drilling at $0.125/ft.	$ 1,188.56		
4,651 ft. of accepted Drilling at $0.125/ft.		$ 581.37	
14,159.5 Total Fixed Unit Costs	$ 1,263.56	$ 621.37	$ 1,884.93
Total Accepted Costs	$20,087.31	$10,120.87	$30,208.18

Docket

Murphy
Ella
Martin
Hoffland
Chambers
Selfridge
Johnson

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

To: Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Boulevard
Beverly Hills, California

Pursuant to the provisions of Exploration Project Contract No. Idm-4926, dated March 9, 1956, (Docket No. DMA-3925), hereinafter called the "contract," between the Pacific Uranium Mines Company, a Nevada corporation, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien therefor and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

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

Holes drilled from the surface of the land described in Article 2 of the contract penetrated uranium ore deposits in the upper part of the Salt Wash member of the Jurassic Morrison formation.

Dated: MAY 8 - 1957

FMMurphy/gla/izm 3-11-57
cc to: Operator
Ervin Olsen & Rhoda W. Olsen
Ray Wareham & Maribelle B. Wareham
Ray Wareham who signed for Earnest C. Wareham & Jeanne C. Wareham under a Power of Attorney
Lyman P. Brown & Catherine Brown
Contract Adm. & Audit Div.
DMA Field Team, Reg. 3 (2)
Finance Office
Docket
Rare & Misc. Metals Div.
Admr.'s Reading File
Mr. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T.H.Hillsgnard, Rm. 5224
Jesse C. Johnson, Director, Div. of Raw Materials, AEC
Mr. Murphy

THE UNITED STATES OF AMERICA

By C. P. Mitchenson
Administrator, Defense Minerals
Exploration Administration

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/3	Murphy	700
12/3	Nicolaisen	700
12-4	Chambers	800
12/4	Selfridge	120
	Long	140
	Sanger	140
12/5	Johnson	110
12/8	C	220
12/5	Barock	130
12/5	Nelson	130
		700

DEC 5 1958

Mr. Bernard M. Silbert, President
Pacific Uranium Mines Company
Suite 210, 292 S. LaCienega Blvd.
Beverly Hills, California

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-B926
Green River Claims
Emery County, Utah

R
INTERIOR DEPT.
DEC 5 - 1958
SOLICITOR

Dear Mr. Silbert:

Reference is made to Mr. J. W. Townsend's letter of September 15, 1958, addressed to Union Carbide Nuclear Company with a copy to you, relating to submission of certain data required by this agency before an approval of the assignment of the subject contract could be effective. These data have not been received to date.

RDM SOLICITOR
DEC - 1958

As you know, work on the project has been recessed since August 30, 1956. In our opinion sufficient time has been allowed for your company and Union Carbide to make the necessary arrangements and comply with our requirements in this case. Therefore, we regret to inform you that the above-referenced contract is terminated effective August 30, 1956, in accordance with the provisions of Amendment No. 5, Item 4(a)(1), to the contract.

FOR SIGNATURE

Kindly promptly perform all winding-up and settlement actions provided for in the contract, including the rendering of a final report and final account to Mr. J. W. Townsend, Executive Officer, OME Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado.

The Office of Minerals Exploration is the successor agency to the Defense Minerals Exploration Administration.

Sincerely yours,

Frank E. Johnson
(esf)
Acting Director

FMMurphy/gla/esf
12/3/58
cc to: Director's Reading File
Operating Committee
THKiilsgaard, 5224
FMMurphy
Div. of Contract Adm. & Audit
OME Field Team, Region III (2)
Union Carbide Nuclear Co.
P. O. Box 1049
Grand Junction, Colorado

RECEIVED
DEC - 5 1958
ASSOC. SOLICITOR
MINERAL RESOURCES

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Long	
	Dwyer	
12/2	McCarthy	700
12/2	Kuhnert	700
12/3	Selfridge	120
		110
		220

Mr. T. S. Ary
Assistant Manager of Exploration
Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Green River Claims
Emery County, Utah

Dear Mr. Ary:

Reference is made to Mr. J. W. Townsend's letter of September 15, 1958, acknowledging receipt of an option and sublease between Union Carbide Corporation and Pacific Uranium Mines Company.

As you know, work on the project has been recessed since August 30, 1956, and since March 21, 1958, we have been attempting to complete the assignment of the contract from Pacific Uranium to Union Carbide.

Accordingly, if the additional information requested in Mr. Townsend's letter of September 15, 1958, is not received by January 1, 1959, the contract will be terminated.

Sincerely yours,

Acting Director
Office of Minerals Exploration

RWLong/eal - 12/1/58

Copy to: Director's Reading file
OME Field Team, Region III (2)
R. P. Dwyer
R. W. Long

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/25/58	Murphy	700
11/25	Kilsaar	700
		140
		140
		800
		130
		110

100
220
700

Mr. Bernard M. Silbert, President
Pacific Uranium Mines Company
Suite 210, 292 S. LaCienega Blvd.
Beverly Hills, California

INTERIOR DEPT.
NOV 26 1958
SOLICITOR

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Green River Claims
Emery County, Utah

Dear Mr. Silbert:

FROM SOLICITOR

The data requested in Mr. C. O. Mittendorf's letter of July 16, 1958, have not been received by Mr. Townsend, Executive Officer, Region III, OME Field Team. Therefore, we regret to inform you that the above-docketed contract is terminated, effective August 30, 1956, in accordance with the provisions of Amendment No. 5, Item 4(a)(1), to the contract.

DEC

FOR SIGNATURE

Kindly promptly perform all winding-up and settlement actions provided for in the contract, including the rendering of a final report and final account to Mr. J. W. Townsend, Executive Officer, OME Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado.

The Office of Minerals Exploration is the successor agency to the Defense Minerals Exploration Administration.

Sincerely yours,

Acting Director

FMMurphy/gla
11-25-58
cc to: Director's Reading File
Operating Committee
THKiilsgaard, 5224
FMMurphy
Div. of Contract Adm. & Audit
OME Field Team, Region III (2)

RECEIVED
NOV 26 1958
ASSOC. SOLICITOR
MINERAL RESOURCES

8623

Government's copy

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 18 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM COMPANY
DOCKET NO. DMEA-3928

AMENDMENT NO. 5

It is agreed this 28th 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 Pacific Uranium Mines Company, hereinafter called the "Operator," that Exploration Project Contract No. Idm-E926, Docket No. DMEA 3928, dated March 9, 1956, as amended, hereinafter called the "Contract," is further amended effective September 30, 1957, as follows:

1. (a) Work under the Contract shall be further suspended during the period beginning September 30, 1957, and ending not later than March 30, 1958.

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

(c) The Operator, at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

2. The time fixed for the completion of the work in Amendment No. 4 is extended from December 9, 1957, to September 30, 1958.

3. The maximum period for royalty payments and lien to secure the payment thereof provided for in Article 8(b)(2) of the Contract is extended to 12 years.

4. It is the essence of this Contract that the work be resumed before the termination of the period herein fixed for suspension, and be completed before the termination of the period fixed for completion; and if it is not so resumed and completed, in the manner required by the Contract, the following provisions shall thereupon become effective:

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

(1) Effective August 30, 1956, if the work has not been resumed on or before March 30, 1958.

(2) Effective September 30, 1958, if the work is resumed by March 30, 1958, but is not completed by September 30, 1958.

(b) The Government will contribute only to allowable costs incurred prior to the relevant effective date set forth in 4(a) above.

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

(d) All rights of the Government provided for in the Contract with respect to a certification of discovery or development, percentage royalty and liens for its payment, records, audits, and recovery of any overpayment, are preserved.

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

This Amendment shall not be construed to

Long
Lindgren
Murphy
Ellis
Talbutt
Selfridge

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," 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 Frank E. Johnson
ACTING Administrator, Defense Minerals
Exploration Administration

MINES
PACIFIC URANIUM/COMPANY

By Bernard M. Lebel

Title President

E-926
T

ernment's copy

"Appd. Sol. Off."
Murphy
Ellis
Chambers
Selfridge
Johnson

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA-3928

AMENDMENT NO. 4

It is agreed this 18th day of March, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Pacific Uranium Mines Company, that Exploration Project Contract No. Idm-E926, Docket No. DMEA-3928, dated March 9, 1956, as amended, hereinafter called the "Contract," is further amended effective August 30, 1956, as follows:

1. Work under the Contract shall be suspended during the period beginning August 30, 1956, and ending not later than September 30, 1957.

2. In Article 3, the date fixed for completion of the work is further extended from March 1, 1957, to December 9, 1957.

3. In Article 8(b)(2), the period "eleven years" is substituted for the period "ten years."

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, or any item of allowable cost which is expressly designated as "maximum."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C Mittendorf
Administrator, Defense Minerals
Exploration Administration

PACIFIC URANIUM MINES COMPANY

By Jerry Klebok
Title Secy Treasurer

OFFICIAL FILE COPY
DMEA
RECEIVED APR 22 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA 3988
CONTRACT NO. 14n-2986

[redacted]
ef 130
225

AMENDMENT NO. 3

It is agreed this 20th day of November, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Pacific Uranium Mines Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. 14n-2986, Docket No. DMEA 3988, dated March 9, 1956, hereinafter called the "Contract," that:

1. Referring to Exhibit "A", caption "Description of the Work," subheading "Stage III," the first paragraph is changed to read as follows:

   "Stage III shall consist of drilling not in excess of forty (40) offset holes at locations not less than 100 feet from those holes drilled under Stage I and Stage II of the contract or other drilled holes in which ore or significant mineralization was found."

2. The date fixed in Article 3, on or before which the work is to be completed, is extended from December 1, 1956 to March 1, 1957.

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 sextuplicate the day and year first above written.

PACIFIC URANIUM MINES COMPANY

By Harry K Jubok
Sec Treas
Title

(Seal)

UNITED STATES OF AMERICA

By D M Hardman
Act. Executive Officer, DMEA
Field Team, Region III

Docket Copy

13

RECEIVED
JUL 23 1956

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA-3928

Amendment No. 2

It is agreed this 25th day of June, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Pacific Uranium Mines Company, parties to that certain Exploration Project Contract No. Idm-E926, Docket No. DMEA-3928, dated March 9, 1956, that the Contract is amended, effective June 1, 1956, as follows:

1. In Exhibit "A" under the heading Description of the Work, the following changes are made:

(a) The first sentence of the first paragraph of Stage I is deleted and the following sentence is substituted: "Stage I shall consist of drilling not in excess of thirty-one (31) holes, totaling an estimated 7,200 feet of non-core and 2,480 feet of core drilling."

(b) The following sentence is added to the last paragraph of Stage I: "Not in excess of 20 hours of bulldozer work shall be performed on access roads or drill sites."

(c) The following sentence is added to the last paragraph of Stage II: "Not in excess of 80 hours of bulldozer work shall be performed on access roads or drill sites."

(d) The following sentence is added to the last paragraph of Stage III: "Not in excess of 61 hours of bulldozer work shall be performed on access roads or drill sites."

2. In Exhibit "A", under the heading Estimated Costs of the Project, all the words and figures are deleted and the following is substituted:

Estimated Costs of the Project

Stage I 31

Actual Costs

Category (1) Independent Contracts 1/

7,200 feet non-core drilling @ $1.50/ft.	$10,800.00
2,480 feet core drilling @ $3.50/ft.	8,680.00

Bulldozing access roads and drill sites, 20 hours @ $11.00/hr.	$ 220.00	$19,700.00
Fixed Unit Costs		
Incidental allowance 2/ for each foot of drilling completed, 9,680 feet @ $0.125/ft.	1,210.00	
Chemical analyses for U_3O_8 and V_2O_5, 30 Samples @ $5.00 each	150.00	1,360.00
Estimated Total Cost Stage I		$21,060.00

Stage II

Actual Costs		
Category (1) Independent Contracts 1/		
13,000 feet non-core drilling @ $1.50/ft.	$19,500.00	
2,000 feet core drilling @ $3.50/ft.	7,000.00	
Bulldozing access roads and drill sites, 80 hours @ $11.00/hr.	880.00	27,380.00
Fixed Unit Costs		
Incidental allowance 2/ for each foot of drilling completed, 15,000 feet @ $0.125/ft.	1,875.00	
Chemical analyses for U_3O_8 and V_2O_5 45 Samples @ $5.00 each	225.00	2,100.00
Estimated Total Cost Stage II		29,480.00

Stage III

Actual Costs		
Category (1) Independent Contracts 1/		
10,800 feet non-core drilling @ $1.50/ft.	16,200.00	
1,200 feet core drilling @ $3.50/ft.	4,200.00	
Bulldozing access roads and drill sites, 61 hours @ $11.00/hr.	671.00	21,071.00

Indritz 6/20/56
Lawyer
"Appr. Sol. Off."
Murphy
Chamberlin
Chambers

Fixed Unit Costs

Incidental allowance 2/ for each foot of drilling completed, 12,000 feet @ $0.125/ft.	$ 1,500.00	
Chemical analyses for U_3O_8 and V_2O_5, 39 Samples @ $5.00 each	195.00	$ 1,695.00
Estimated Total Cost Stage III		$22,766.00

S U M M A R Y

Estimated Total Cost Stage I	$21,060.00	
Estimated Total Cost Stage II	29,480.00	
Estimated Total Cost Stage III	22,766.00	
Estimated Total Cost of Project		$73,306.00
Government Participation @ 75% (rounded)		$54,980.00

1/ Categories (2) through (7) do not apply to this contract.
2/ Includes all costs whatsoever (chemical analyses excepted) that are not included under "Independent Contracts" and includes such items as supervision, radiometric logging of holes, etc., which would otherwise be allowable under Categories (2) through (7) of the contract form.

* * * * * * * * * * * * * * *

3. In Article 5 of the contract, the figures "$73,840.00" and "$55,380.00" are deleted, and the figures "$73,306.00" and "$54,980.00," respectively, are substituted therefor.

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

THE UNITED STATES OF AMERICA

By C. D. Mitchenden
Administrator, Defense Minerals
Exploration Administration

Selfridge

PACIFIC URANIUM MINES COMPANY

By George T. Hubok

Title Secretary Treasurer

Surname Copy

700

Murphy
Ellis

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

June 12, 1956

Memorandum

To: The Administrator

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

Subject: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E 926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

JUSTIFICATION FOR AMENDMENT NO. 2

The application and the Field Team's recommendation for an exploration project did not provide for bulldozer work on access roads or drill sites.

In preparing the draft of the contract here in Washington, we assumed that access roads to the proposed drill sites had been completed prior to the application and that, if they had not been completed, there was no great necessity for bulldozer work. Therefore, in footnote 2 of Exhibit "A", relating to "Incidental Allowance", we included "access roads to drill sites" as being a minor item.

The Field Team in its memorandum dated June 7, 1956, and attachments thereto now recommend that bulldozer work on access roads and drill sites should be added and state that this work is necessary for the work of the project. Since the bulldozing was omitted from the contract, through a mutual error of omission by the Field Team and Operator, we concur in the Field Team's recommendation. The money to cover this item is available without increasing the total value of the contract because it has been found that three drill holes allowed in Stage I were not needed. The estimated cost of the three holes deleted is $2,303.25. The cost of adding the bulldozer work is $1,771.00 or a minus difference in the contract of $532.25.

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

FMMurphy/rem
cc: Admr. Reading File
Operating Committee
Docket
Code 700
Mr. Murphy

RECEIVED

JUN 25 1956

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA 3988
CONTRACT NO. IDM-E986

AMENDMENT NO. 1

It is agreed this 1st day of June, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Pacific Uranium Mines Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. IDM-E986, Docket No. DMEA 3988, dated March 9, 1956, hereinafter called the "Contract," that the Contract is amended as follows:

In lieu of drilling thirty-four (34) holes, Nos. D-1 through D-34, under Stage I at the approximate locations shown on the map, "Figure 3", referred to in the Contract, certain holes will be omitted and other holes drilled at revised locations, as follows:

(1) Holes Nos. D-23, D-26, and D-29 will not be drilled.

(2) Holes Nos. D-14, D-17, and D-18 will not be drilled at the locations shown on "Figure 3" referred to above, but instead will be drilled at the revised locations indicated by the symbol "X" and as numbered D-14-B, D-17-B, and D-18-B on the map entitled, "Figure 1. Locations of Alternate Proposed Stage I Drill Sites and Stage I Holes Drilled to Date, Pacific Uranium Company, Emery County, Utah," which is attached hereto and made a part of 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 fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "MAXIMUM."

Executed in sextuplet the day and year first above written.

PACIFIC URANIUM MINES COMPANY

By [signature]

Title Pres

(Seal)

UNITED STATES OF AMERICA

By W. M. Traver

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

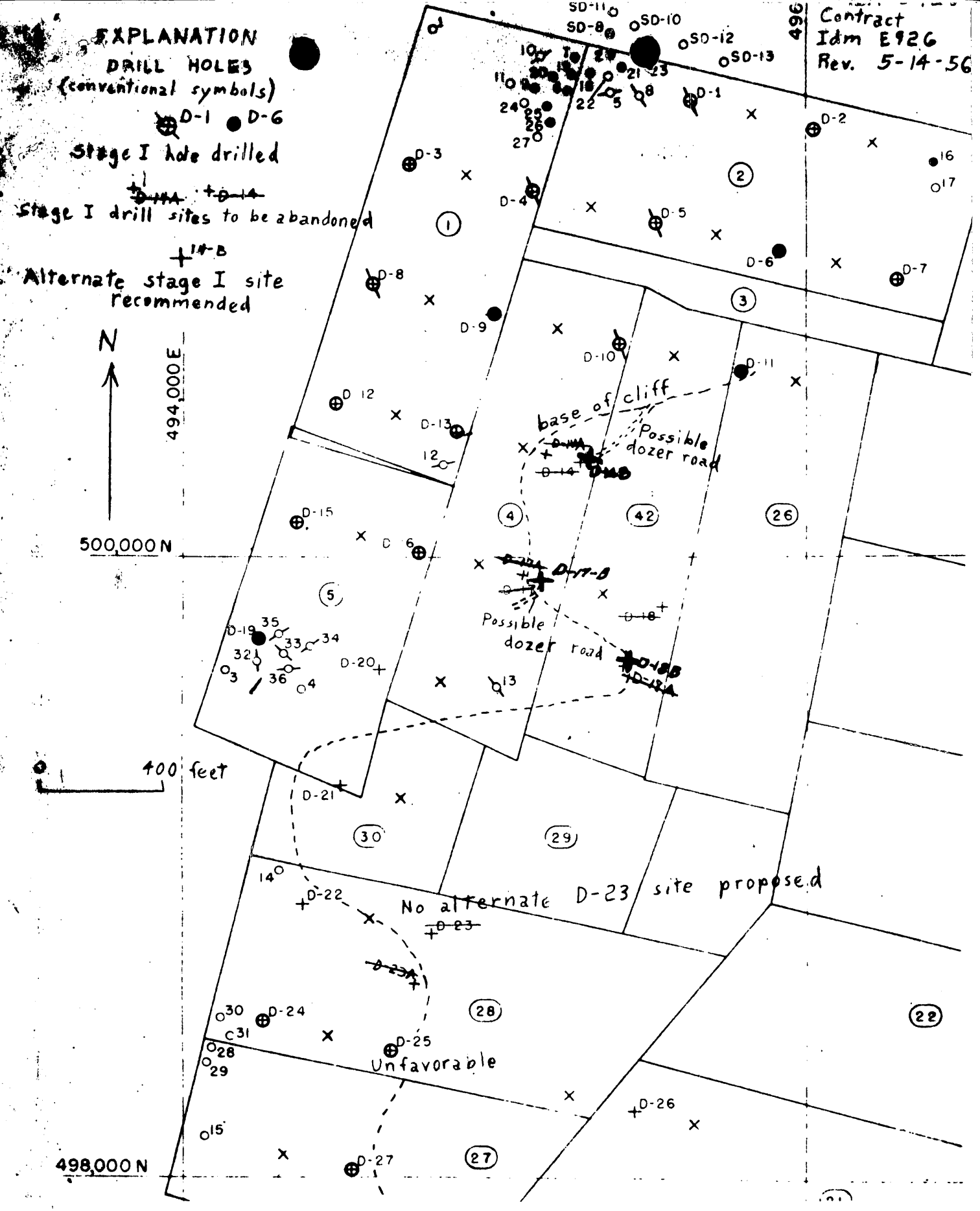

FIGURE 1. LOCATIONS OF ALTERNATE PROPOSED STAGE I DRILL SITES AND STAGE I HOLES DRILLED TO DATE, PACIFIC URANIUM PROPERTY, EMERY COUNTY, UTAH

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Docket Copy B

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MAR 2 9 1956

MF-200
(Revised June 1954)

Docket No. DMEA 3928

Commodity Uranium

Contract No. Idm-E 926

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this MAR 9 1956 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] Pacific Uranium Mines Company, a Nevada corporation, whose mailing address is 122½ South Vermont Avenue, Los Angeles 4, California, 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 maps, Figure 2 and Figure 3.

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 Utah, County of Emery, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] sub-lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] sub-lease, [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: royalty of 15% of "net mill returns" payable to original lessors

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

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

See Mr. Murphy's note in docket of 1/25/56
and letterhead of company, January 20, 1956,
that following address is to be used:
Pacific Uranium Mines Company
Suite 210, 292 South La Cienega Blvd.
Beverly Hills, California

of the land (lessor, seller, optionor, etc.), are attached, as follows: Owners' Consent to Lien

(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 April 15, 1956 shall commence the work, and on or before December 1, 1956 (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 $3,840.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $5,380.00: *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. **And 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.

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.*—
To the extent that costs are set forth in Exhibit "A" as "Fixed Unit Costs" they are in lieu of the actual costs that otherwise would be estimated and allowable under the provisions of Article 6 of this contract.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. T. Mittendorf

Administrator, Defense Minerals Exploration Administration

PACIFIC URANIUM MINES COMPANY
(Operator)

By A. E. Hurley

Its PRESIDENT

Indexed 3/2/56
Dwyer
"Appd. Sol. Off."
Murphy
Ellis
Chandler
Selfridge
Johnson

I, IRVING KLUBOCK, certify that I am the secretary of the corporation named as Operator herein; that AE HURLEY 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.

Irving Klubock

[CORPORATE SEAL]

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

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA-3928

ANNEX I

The land referred to in Article 2 of the Contract consists of 40 full-size lode mining claims and 14 fractional lode mining claims, all unpatented, Notices of Location of which are recorded in the office of the County Recorder, Emery County, Utah, as follows:

Claims	Book No.	Page No.	Date of Recording
Ajax Nos. 1-22 incl.	J-70	37-41, 47-56, 60-66, incl.	12/10/1954
Wills Nos. 1-9 incl.	J-70	57, 58, 70-76 incl.	12/10/1954
Jeannie No. 1	J-70	59	12/10/1954
Ajax Nos. 23-25 incl.	J-54	112-114 incl.	10/4/1954
Ajax Fraction No. 1	J-71	240	12/11/1954
Ajax Fractions Nos. 2-5 incl.	J-70	33-36 incl.	12/10/1954
Ajax Fractions Nos. 6-8 incl.	J-70	67-69 incl.	12/10/1954
Ajax Fractions Nos. 9, 13, 14, 21	J-71	241-244 incl.	12/11/1954
Wills Fractions Nos. 6, 9	J-71	245-246 incl.	12/11/1954
Red Nos. 1-3 incl.	J-70	42-46 incl.	12/10/1954

The above-described claims are situated in secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S.L.B.M., and are shown on the map entitled "Figure 3 - Map Showing Existing Drill Holes, Proposed Stage I and Stage II DMEA Drilling, Jeannie No. 1, Red, Ajax, and Wills Groups of Claims, Pacific Uranium Mines Company, Emery County, Utah," attached hereto and made a part hereof.

MF-203
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Pacific Uranium Mines, Corp.
Docket No. DMEA- 1928
Contract No. Idm-E 926
Contract Date MAR 9 1956

CONSENT TO LIEN

RECEIVED
FEB 28 1956

To the United States of America:

Referring to that ~~xxxxxxxxxxxxxxx~~ those certain unpatented lode mining claims situate in the County of Emery, State of Utah, described as follows:1/ Red No. 1 to 5 inclusive ~~and Red Claim No. 6.~~ Ajax No. 1 to Ajax No. 25, inclusive; Ajax Fraction No. 1 to Ajax Fraction No. 9, inclusive; Ajax Fraction Nos. 13, 14, and 21; Wills No. 1 to Wills No. 9, inclusive, Wills Fraction Nos. 6 and 9; Jeannie No. 1. All of said claims are situate in portions of sections 22, 26, 27, 34, and 35 in T. 21 S., R. 14 E., and are shown on map, Fig. 3, attached to proposed exploration project contract to which reference is hereby made for a more complete description.

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;2/ and represents and undertakes that there are no claims, liens, or encumbrances upon the undersigned's right, title, or interest in the land prior to that hereby granted to the Government other than the following:3/

Royalty on production as specified in certain mineral leases, dated August 18, 1954, wherein Haile Mines, Inc., a Delaware Corporation, a predecessor in interest of Pacific Uranium Mines Company, applicant for proposed exploration project contract, is Lessee.

3. Undertakes and agrees neither to commit any act nor assert any claim in conflict with the provisions of this Consent to Lien; and to give advance notice of the Government's rights under this Consent to Lien to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, or interest in the land; and

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

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

3/ Write "none" if that is the case. Do not leave lines blank.

4. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Consent to Lien shall extend and apply thereto.

5. Added provision: None.

address Ferron, Utah

Dated this 17 day of Feb., 1956.

Ervin Olsen [Seal] Ray Wareham [Seal] by Ray Wareham [Seal]
Ervin Olsen — Ray Wareham — Jeanne C. Wareham

Rhoda W Olsen [Seal] Maribelle B. Wareham [Seal] Lyman P. Brown [Seal]
Rhoda W. Olsen — Maribelle B. Wareham — Lyman P. Brown

Earnest C Wareham by Ray Wareham [Seal] Catherine J. Brown [Seal]
Earnest C. Wareham — Catherine J. Brown

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

_____

[Corporate Seal]

Sworn to before me a Notary Public in and for the County of Grand, State of Colo. this 23rd day of February 1956, by Ray Wareham, Maribelle B. Wareham, Earnest C. Wareham by Ray Wareham, Jeanne C. Wareham by Ray Wareham, Lyman P. Brown and Catherine J. Brown in my office in Kremmling, Colorado.

Harry B. Jones
Notary Public

My Commission Expires March 1, 1958
HARRY B. JONES
Notary Public * * * Grand County

STATE OF UTAH)
: ss.
COUNTY OF CARBON)

Personally appeared before me this 17th day of February, 1956, Ervin Olsen and Rhoda W. Olsen, husband and wife, and Ray Wareham also sometimes known as Kenneth R. Wareham and being one in the same person and Maribelle B. Wareham, husband and wife, four of the signers of the foregoing "CONSENT TO LIEN" who duly acknowledged to me that they executed the same; the said Ray Wareham also known as Kenneth R. Wareham also acknowledged to me that he executed the foregoing instrument as agent and attorney in fact for Earnest C. Wareham and Jeanne C. Wareham also known as Cora Jeanne Wareham, husband and wife, pursuant to a power of attorney executed by the said Earnest C. Wareham on August 5, 1954, which power of attorney is recorded in the office of the county recorder of Emery County, Utah, in Book F-1 at page 100 and pursuant to a power of attorney executed by the said Cora Jeanne Wareham on August 9, 1954, which power of attorney is recorded in the said county recorders office in Book F1 at page 101.

G. Magleuer
Notary Public
Residing at Price, Utah

My commission expires:
August 4, 1958

RECEIVED
FEB 28 1956

RECEIVED
MAR 29 1956

POWER OF ATTORNEY

5 August 1954

BE IT KNOWN that I, Earnest C. WAREHAM, 369 11 41, second class engineman, U. S. Navy, do hereby constitute and appoint my brother, RAY WAREHAM, residing at Ferron, Utah, to be my attorney in fact, with full authority to sign any and all necessary papers in connection with the sale of mineral claims located approximately twelve miles west of Greenriver, Utah, as effectually as I could myself do if personally present, and I do hereby ratify and confirm all acts that may lawfully be done in pursuance of this power.

EARNEST C. WAREHAM

State of California)(
) ss.
County of San Francisco)

On this the 5th day of August 1954, before me, L. H. BENRUBI, the undersigned officer, personally appeared Earnest C. WAREHAM, 369 11 41, EN3, USN, known to me to be the person whose name is subscribed to the within instrument and acknowledge that he executed the same freely and vuluntarily for the purposes therein contained. And the undersigned does further certify that he is at the date of this certificate, a commissioned officer of the rank stated below, and is in the active service of the armed forces of the United States.

L. H. BENRUBI
265866/1625
Lieutenant Commander, USNR
NavRecSta, T. I., SFran., Calif.
Law Specialist

Recorded January 6, 1956 at 11:54 a.m., in Book F-1 at page 100 of the records of Emery County, State of Utah. Nellie B. Young, Recorder Emery County.

STATE OF UTAH,

County of Emery, ss.

I, NELLIE B. YOUNG, Recorder in and for the County of Emery, State of Utah, do hereby Certify that the attached Power of Attorney is a full, true and correct copy of the Power of Attorney recorded in Book F-1, page 100 of the records of Emery County, State of Utah.

WITNESS my hand and official seal this 6th day of January, A. D. 1956.

Nellie B. Young
Recorder Emery County, Utah

RECEIVED
FEB 28 1956

Entry No. 143143

POWER OF ATTORNEY

August 9, 1954

BE IT KNOWN that I, Cora Jeanne Wareham, wife of Earnest C. Wareham, do hereby constitute and appoint my brother-in-law, Kenneth R. Wareham, residing at Ferron, Utah, to be my attorney in fact, with full authority to sign any and all necessary papers in connection with the sale of mineral claims located approximately twelve miles west of Greenriver, Utah, as effectually as I could myself do if personally present, and I do hereby ratify and confirm all acts that may lawfully be done in pursuance of this power.

Cora Jeanne Wareham

STATE OF CALIFORNIA)
) SS
COUNTY OF ALAMEDA)

On this 9th day of August in the year One Thousand Nine Hundred and Fifty-Four before me Lorayne I. Healy, a Notary Public in and for the County of Alameda, State of California, residing therein, duly commissioned and sworn, personally appeared Cora Jeanne Wareham known to me to be the person described in and whose name is subscribed to the within instrument, Power of Attorney and she acknowledged to me that she executed the same.

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

Lorayne I. Healy, Notary Public
In and for said County of
Alameda, State of California

Seal is shown.

General Acknowledgment
My Commission expires July 5, 1958.

Recorded at request of Ray Wareham Feb. 17, 1956 at 10:30 a.m., in Book F-1, Power of Attorney, page 101 of the records of Emery County, State of Utah.

STATE OF UTAH,

County of Emery, ss.

I, NELLIE B. YOUNG, Recorder in and for the County of Emery, State of Utah, do hereby Certify that the attached is a full, true and correct copy of the Power of Attorney recorded in Book F-1, page 101 of the records of Emery County, State of Utah.

WITNESS my hand and official seal this 17th day of February, A. D. 1956.

Nellie B. Young
Recorder Emery County, State of Utah

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA-3928

Exhibit "A"

Description of the Work

The object of this project is to explore the upper part of the Salt Wash member of the Morrison formation by means of core and non-core drilling. Attached hereto and made a part hereof is Figure 2 entitled "Generalized Geologic Map showing Ore Bodies and Ore Holes, Pacific Uranium Mines Company Property, Emery County, Utah."

It is estimated that holes ranging from 200 to 450 feet in depth will be required to penetrate through the inferred uranium-bearing sandstone.

The work shall be divided into three stages. The Operator shall complete all the work in Stage I and so much of each succeeding stage as is approved in advance in writing by the Government.

Stage I

Stage I shall consist of drilling not in excess of thirty-four (34) holes, totaling an estimated 8,082 feet of non-core and 2,720 feet of core drilling. The approximate locations of the drill holes are shown on map Figure 3, referred to in Annex I of this Contract, and are identified by an X with the letter D preceding the numerical number of the hole.

Holes D-1 through D-29 shall not be closer than approximately 400 feet and drill holes D-30 through D-34 shall not be closer than approximately 800 feet to any other hole drilled pursuant to Stage I of this Contract.

If the drill footage estimated for Stage I drilling is not sufficient to complete the 34 holes, then with previous written Government approval a part of the footage estimated for Stage II may be used to complete the 34 holes and the footage of Stage II shall be correspondingly reduced.

Not in excess of 30 samples shall be analyzed for their U_3O_8 and V_2O_5 content.

Stage II

Stage II shall consist of drilling not in excess of fifty (50) holes at locations approximately 200 feet in a N. 75° W., and approximately 200 feet in a S. 75° E., direction from each of the holes drilled in Stage I which penetrated ore-bearing rock or favorable sandstone with significant mineralization. The approximate locations of all possible holes, that might meet these criteria, are indicated by an X on the attached map, entitled Figure 3.

It is estimated that 13,000 feet of non-core and 2,000 feet of core drilling in this Stage II of the Contract will be required to complete the 50 holes authorized. Any excess drilling footage remaining in Stage II, after completing the holes approved by the Government, shall not be used to complete Stage III. However, any excess drilling footage remaining in Stage I may be used to complete the number of holes authorized for Stage II, subject to prior written Government approval. If the drilling footage for Stage II drilling is not sufficient to complete the 50 holes, then with previous Government approval a part of the footage estimated for Stage III may be used to complete the 50 holes, and the footage of Stage III shall be correspondingly reduced.

Not in excess of 45 samples shall be analyzed for their U_3O_8 and V_2O_5 content.

Stage III

Stage III shall consist of drilling not in excess of forty (40) offset holes at locations not less than 100 feet from those holes drilled under Stage I and Stage II in which ore or significant mineralization was found.

It is estimated that 10,800 feet of non-core and 1,200 feet of core drilling in this Stage III of the Contract will be required to complete the forty (40) holes authorized.

Not in excess of 39 samples shall be analyzed for their U_3O_8 and V_2O_5 content.

General Provisions

A competent supervisor shall be employed full time in connection with the performance of the project work.

All holes shall be drilled non-core to about 5 feet above the inferred top of the favorable uranium-bearing sandstone, and the rest of the hole then shall be core drilled to about 5 feet below the bottom of the sandstone.

The Government shall not contribute to the cost of any hole that (1) does not penetrate through the favorable sandstone; (2) bottoms less than AX core size; (3) cannot be probed with radiometric logging equipment; (4) is drilled closer than 100 feet to the outer boundaries of the subject property.

Sections of drill core showing uranium mineralization shall be split. One-half of the split core shall be analyzed for its U_3O_8 and V_2O_5 content. The remainder shall be stored, for Government use, with the rest of the core, in boxes properly labeled as to drill hole number. Markers shall be placed in the sections of core to indicate the depth represented.

All holes shall be logged and probed for radioactivity. Records of such logging and probing, together with assay certificates, shall be submitted with the Operator's monthly progress report.

The supervision, the extent, and method of sampling and logging drill holes, the manner of storing drill core, and the location, direction, and depth of drill holes are all subject to Government approval.

Estimated Costs of the Project

Stage I

Actual Costs

Category (1) Independent Contracts 1/

8,082 feet non-core drilling @ $1.50/ft.	$12,123.00	
2,720 feet core drilling @ $3.50/ft.	9,520.00	$21,643.00

Fixed Unit Costs

Incidental allowance 2/ for each feet of drilling completed 10,802 feet @ $0.125/ft.	1,350.25	
Chemical analyses for U_3O_8 and V_2O_5 30 samples @ $5.00 each	150.00	1,500.25
Total Estimated Costs Stage I		$23,143.25

Stage II

Actual Costs

Category (1) Independent Contracts 1/

13,000 feet non-core drilling @ $1.50/ft.	$19,500.00	
2,000 feet core drilling @ $3.50/ft.	7,000.00	$26,500.00

Fixed Unit Costs

Incidental allowance 2/ for each foot of drilling completed 15,000 feet @ $0.125/ft.	1,875.00	
Chemical analyses for U_3O_8 and V_2O_5 45 samples @ $5.00 each	225.00	2,100.00
Total Estimated Costs Stage II		$28,600.00

Stage III

Actual Costs

Category (1) Independent Contracts 1/

10,800 feet non-core drilling @ 1.50/ft.	16,200.00	
1,200 feet core drilling @ $3.50/ft.	4,200.00	20,400.00

Fixed Unit Costs

Incidental allowance 2/ for each foot of drilling completed 12,000 feet @ $0.125/ft.	1,500.00	
Chemical analyses for U_3O_8 and V_2O_5 39 samples @ $5.00 each	195.00	1,695.00
Total Estimated Costs Stage III		$22,095.00

1/ Categories (3) through (7) do not apply to this contract.

2/ Includes all costs whatsoever (chemical analyses excepted) that are not included under "Independent Contracts" and includes such items as supervision, radiometric logging of holes, access roads to drill sites, etc., which would otherwise be allowable under Categories (2) through (7) of the contract form.

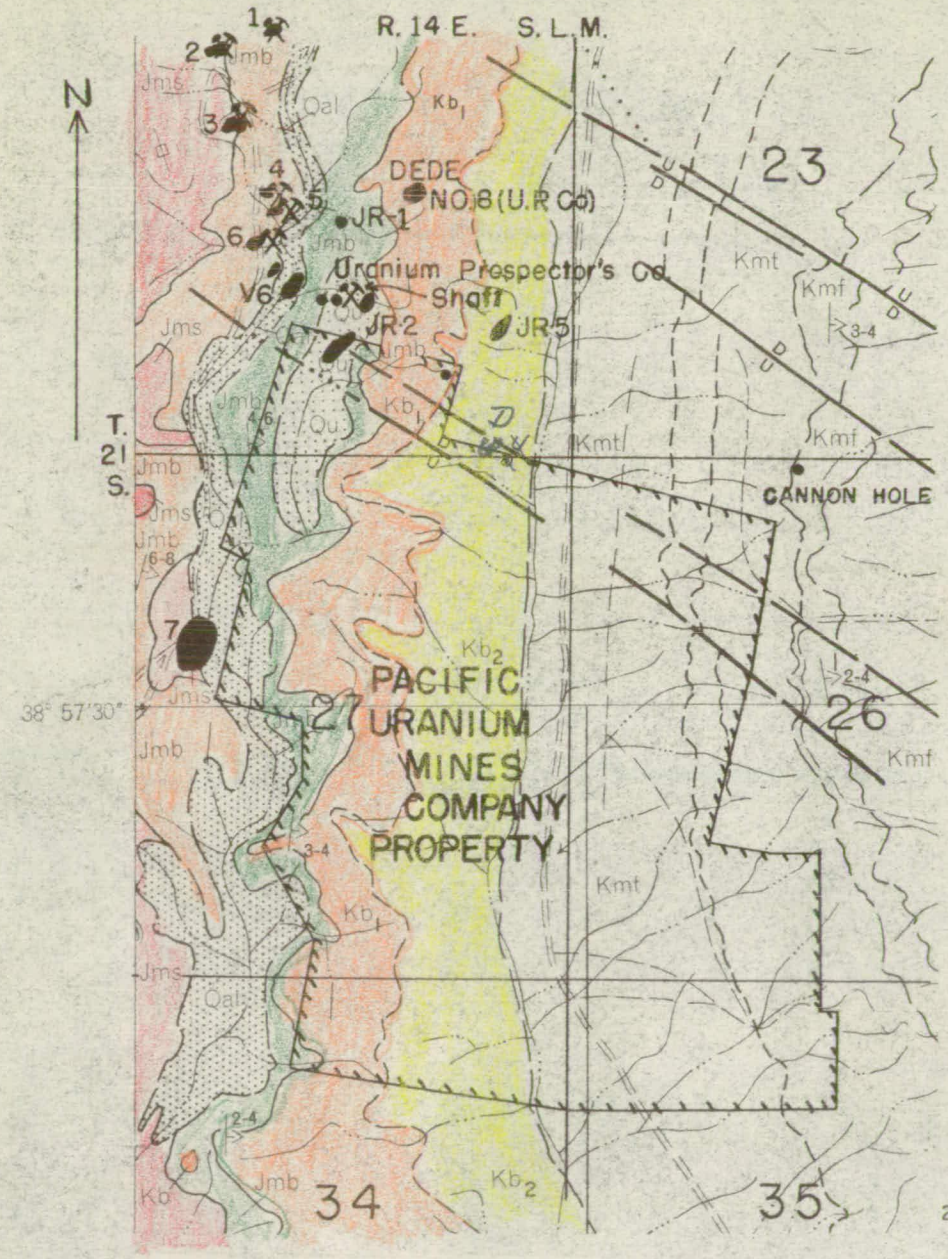
SUMMARY

Total Estimated Cost Stage I	$23,143.25	
Total Estimated Cost Stage II	28,600.00	
Total Estimated Cost Stage III	22,095.00	
Total Estimated Cost of Project (rounded)		$73,840.00
Government Participation @ 75%		$55,380.00

Division Copy

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3928 1955



EXPLANATION

Qal / Qu

QUATERNARY DEPOSITS
(ALLUVIUM, Qal; UNDIFFERENTIATED SAND, ETC., Qu)

Kmu / Kmf / Kmt

CRETACEOUS MANCOS SHALE
(UPPER PART Kmu; FERRON(?) SANDSTONE MEMBER, Kmf; TUNUNK SHALE MEMBER, Kmt)

Kb2 / Kb1

CRETEOUS BURRO CANYON FORMATION
(INCLUDES "BUCKHORN CONGLOMERATE", Kb , AND "CEDAR MOUNTAIN SHALE", Kb)

Jmb / Jms

JURASSIC MORRISON FORMATION
(BRUSHY BASIN SHALE MEMBER, Jmb; SALT WASH SANDSTONE MEMBER, Jms)

2-4

STRIKE AND DIP OF BEDS

2

INCLINE OR VERTICAL SHAFT
(NUMBERS DESIGNATE WORKING INCLINES OF FOUR CORNERS URANIUM CORPORATION)

ORE BODY
(BODIES WITH PREFIX JR, JACK RABBIT CLAIMS: BODIES WITH PREFIX V6, VANURA 6 CLAIMS)

ORE-BEARING HOLE

Note: BASE FROM U.S. GEOLOGICAL SURVEY PHOTOGEOLOGIC QUADRANGLE MAP TIDWELL3.

2000 0 4000 FEET

Figure 2. GENERALIZED GEOLOGIC MAP SHOWING ORE BODIES AND ORE HOLES, PACIFIC URANIUM MINES COMPANY PROPERTY, EMERY COUNTY, UTAH

DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE IDM-E 926 DMEA NO. 3928

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

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

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

Left Side

Interim Royalty Audits
✓ Reports of Royalty Review
✓ Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
✓ Report of Review
✓ Termination Notice or Agreement (letter 12/5/58)
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)
✓ Operator's Final Report
(2R) ✓ Interim Reports Sep folder
(2R) ✓ Operator's monthly reports and all attachments (~~latest on top~~) Separate folder
✓ 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~~ 3: Settlement Sheets & Semiannual Reports on Cert. Project

Folder No. 5: Drill Logs

9775

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

ROYALTY AUDIT CERTIFICATE

I have examined the production, sales, and royalty accounts and records pertaining to the sale of uranium ore by Four Corners Oil & Minerals Company for the period October 17, 1962, through April 3, 1964, from property known as the Green River claims located in Emery County, Utah, on which royalty is payable to the U. S. Government under terms of Contract Idm-E926, Docket DMEA-3928 (uranium), dated March 9, 1956, with

Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Boulevard
Beverly Hills, California

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit established the total sales of ore subject to Government royalty for this period to be $84,306.03 and the amount of royalty payable at rates specified in the contract to be $4,215.29.

Prior Reports of Royalty Review found the sales subject to royalty for the period March 9, 1956, through October 16, 1962, to be $195,251.31 which added to the sales for the subsequent period make a total of $279,557.34. The royalty account as of October 16, 1962, was:

Total Royalty Payable	$ 9,762.56
Total Royalty Paid	9,762.56
Balance of Royalty Due	$ -0-

As of April 3, 1964, the royalty account of this project was found to be:

Total Royalty Payable	$13,977.85
Total Royalty Paid	13,977.85
Balance of Royalty Due	$ -0-

C. E. Fisher

C. E. Fisher, OME Auditor

April 27, 1964

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

ROYALTY AUDIT REPORT

I. INTRODUCTION

On April 3, 1964, an audit was made of the production, sales, and royalty accounts and records pertaining to the value of uranium ore sold during the period October 17, 1962, through April 3, 1964, from property known as the Red Claims Nos. 1 through 5, five of the fifty-four claims located in Emery County, Utah, on which royalty is payable to the U. S. Government under terms of Contract Idm-E926, Docket DMEA-3928 (uranium), dated March 9, 1956, with

Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Boulevard
Beverly Hills, California

This audit was performed in the offices of Four Corners Oil & Minerals Company, Room 613, 1575 Sherman Street, Denver, Colorado, which Company is in possession of Red Claims Nos. 1 through 5 by virtue of a mineral quitclaim deed dated May 2, 1961, executed by Ray Wareham and Maribelle B. Wareham, husband and wife, and Ervin Olsen and Rhoda W. Olsen, husband and wife. The production and sales records were maintained by and were made available for this audit by Roy Davis, the controller of the Four Corners Oil & Minerals Company. H. M. Connors, Acting Field Officer, OME Region III, accompanied this auditor and assisted in the audit, which was performed concurrently with a royalty audit of Four Corners records pertaining to Contract Idm-E877, Docket DMEA-3767 (uranium).

Under this exploration contract with Pacific Uranium Mines Company, all production from 40 full-size and 14 fractional unpatented claims in secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S.L.B.M., is subject to the Government's royalty. At the time the contract was executed the Operator was in possession by virtue of a July 1, 1955, assignment by Haile Mines of two August 14, 1954, leases granted by Ray Wareham, Ferron, Utah, and others. In consideration of the contract, the several lessors executed a Consent to Lien on February 17, 1956, granting to the Government a lien on the land and any production therefrom to secure the payment of royalty.

Exploration work under the contract was discontinued on August 29, 1956. There was no production during the exploration period and none thereafter by the Operator. However, during 1958 the Operator sub-leased 27 of the claims to Union Carbide Nuclear Company, Box 1049, Grand Junction, Colorado, which, in turn, entered into an

operating agreement with Vitro Uranium Company, 600 West 33rd South, Salt Lake City, Utah. Shipments of production from the Red No. 2 claim started in November 1958 and continued to November 1959. These sales are covered by Report of Royalty Review dated August 16, 1960.

The operations, sales, and royalty settlements by Four Corners from the date it acquired Red Claims Nos. 1 - 5 through September 1962 are covered by Report of Royalty Review dated December 13, 1962. The present audit extends the period of such review through April 3, 1964. Operations are continuing; however, settlements by the purchasers of the ore had not been completed for any month subsequent to February 1964 at the time of this audit.

No production from the other claims under the exploration contract has been reported by the Operator, owners, or lessees, or disclosed by available records.

II. GENERAL INFORMATION

Article 8 and Amendment No. 5 of the contract provide that, if the Government certifies that a discovery or development from which production may be made has resulted from the exploration work, the Operator, as principal if the producer or as surety if not the producer, shall pay to the Government a percentage royalty on all minerals produced from the land described in Article 2 of the contract for a period of 12 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A certification of discovery or development was issued by the Government on May 8, 1957.

A Report of Review dated March 19, 1959, indicated accepted costs under the exploration contract amounting to $30,208.18 with the Government's contribution on a 75 percent basis being $22,656.14.

III. SCOPE OF AUDIT AND FINDINGS

A considerable amount of preaudit work was accomplished in the OME Washington, D. C., and Denver, Colorado, offices prior to this audit. During this preaudit work a statement of royalty received was prepared from copies of summaries furnished by Four Corners showing computations of royalty remittances. All of the data included in the statement were confirmed by detailed recomputation.

This statement, which is filed as a part of my audit work papers, was reconciled with the production and sales records in the Company's office.

During the audit it was ascertained that Four Corners sells its uranium ore to Vitro Chemical Company, Salt Lake City, Utah. Settlements are made monthly and are computed on the basis of average contents during the month. Ore is shipped from several other properties operated by Four Corners with shipments being regulated to produce the most favorable balance of values during the month. Quantities of U_3O_8 and $CaCO_3$ in the Red Claims ore are based on samplings of that ore. The value of the ore for the purpose of computing the royalty payable to the Government is determined by application of the settlement rates to such quantities. This practice is general throughout the Company's operations and is used in settlements made with property owners and lessees operating in its mines.

Mr. Davis indicated that it is the present intention of the Company to continue operation on the Red Claims and that the prospects are good for repayment of the entire Government advance before the expiration of the royalty period provided by the contract.

IV. CONCLUSION

A summary analysis of the sales of production from March 9, 1956, through February 29, 1964, and the royalty payable thereon and paid through April 3, 1964, follows:

	Union Car.- Vitro Oper.	Four Corners Oper. Prior	Four Corners Oper. This Period	Totals
Dry Weight, Tons	2,794.10	2,245.14	2,026.52	7,065.76
Contents, Lbs.: U_3O_8	15,016.96	20,528.34	18,467.44	54,012.74
V_2O_5	20,962.86	-0-	-0-	20,962.86
U_3O_8 Payments:				
Base	$50,965.97	$71,849.20	$76,713.54	$199,528.71
Premiums	3,203.86	9,165.31	2,628.70	14,997.87
Development	7,508.51	10,264.17	2,918.09	20,690.77
Processing Gains	25,940.68	-0-	-0-	25,940.68
Lime Allowance	-0-	4,490.27	1,165.62	5,655.89
Lime Penalties	-0-	-919.80	-139.83	-1,059.63
Grading Allowances	-0-	3,928.98	1,019.91	4,948.89

	Union Car.- Vitro Oper.	Four Corners Oper. Prior	Four Corners Oper. This Period	Totals
V_2O_5 Payments:				
Base	$ 6,498.48	$ -0-	$ -0-	$ 6,498.48
Processing Gains	2,355.68	-0-	-0-	2,355.68
Total Proceeds	$96,473.18	$98,778.13	$84,306.03	$279,557.34
Royalty at 5%	$ 4,823.65	$ 4,938.91	$ 4,215.29	$ 13,977.85

This audit has confirmed the accuracy and propriety of royalty payments received applicable to sales of production from the Red Claims since May 2, 1961, date of the mineral quitclaim deed.

C. E. Fisher

C. E. Fisher, OME Auditor

April 27, 1964

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract Idm-E926, Docket DMEA-3928 (uranium), dated March 9, 1956, with

Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Boulevard
Beverly Hills, California

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Green River claims located in Emery County, Utah, during the period December 1, 1959, through October 16, 1962.

A certification of discovery or development was issued on May 8, 1957, and, in accordance with Article 8 and Amendment No. 5 of the contract, royalty is payable on all minerals produced from the land described in Article 2 of the contract for a period of 12 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review dated March 19, 1959, indicated accepted costs under the exploration contract amounting to $30,208.18 with the Government's contribution on a 75 percent basis being $22,656.14.

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

This review established the total sales subject to the Government's royalty for the period to be $98,778.13. Royalty payable to the Government at the rate specified in the contract is $4,938.91.

A prior Report of Royalty Review found the sales subject to the Government's royalty through November 30, 1959, to be $96,473.18 which added to the sales for this subsequent period make a total of $195,251.31. The royalty account as of November 30, 1959, was:

Total Royalty Payable	$4,823.65
Total Royalty Paid	4,823.65
Balance of Royalty Due	$ -0-

As of October 16, 1962, the royalty account of this project was found to be:

Total Royalty Payable	$9,762.56
Total Royalty Paid	9,762.56
Balance of Royalty Due	$ -0-

December 13, 1962

E. D. Talbert, OME Auditor

STATUS OF PROJECT, SCOPE OF REVIEW AND REASONS THEREFOR

This contract provides that the Operator, as principal if the producer or as surety if not the producer, shall pay to the Government a percentage royalty on all minerals produced from the land thereunder. The land consists of 40 full-sized and 14 fractional unpatented claims in secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S.L.B.M. At the time the contract was executed the Operator was in possession by virtue of a July 1, 1955, assignment by Haile Mines of two August 14, 1954, leases granted by Ray Wareham, Ferron, Utah, and others. In consideration of the contract, the several lessors executed a Consent to Lien on February 17, 1956, granting to the Government a lien on the land and any production therefrom to secure the payment of royalty.

Exploration work under the contract was discontinued on August 29, 1956. There was no production during the exploration period and none thereafter by the Operator. During 1958 the Operator subleased 27 of the claims to Union Carbide Nuclear Company, Box 1049, Grand Junction, Colorado, which, in turn, entered into an operating agreement with Vitro Uranium Company, 600 West 33rd South, Salt Lake City, Utah. Shipments of production from the Red No. 2 claim started in November 1958 and continued to November 1959. These sales are covered by a prior Report of Royalty Review.

By a mineral quitclaim deed executed on May 2, 1961, the owners of the claims conveyed all of their interests in the Red Nos. 1 to 5 claims to Four Corners Oil & Minerals Co., 1575 Sherman Street, Denver 3, Colorado. For the period of January 1962 through September 1962, Four Corners has submitted and paid royalty on the basis of summary statements of shipments from the Red claims. No production from the other claims under the exploration contract has been reported by the Operator, owners, or lessees.

This review, the findings of which are subject to revision in the event of future audit by the Government of the producer's or Operator's records or examination of the stoped areas, included a tabulation and recomputation of the monthly statements submitted by Four Corners. The tabulation, which is filed with my audit work papers, is summarized together with the findings of a prior Report of Royalty Review as follows:

Idm-1926 Pacific Uranium Mines Company DMEA-3928

	Prior Review	This Review	Totals
Dry Weight, Tons	2,794.10	2,245.14	5,039.24
Contents, Pounds: U_3O_8	15,016.96	20,528.34	35,545.30
V_2O_5	20,962.86	-	20,962.86
U_3O_8 Payments:			
Base	$50,965.97	$71,849.20	$122,815.17
Premiums	3,203.86	9,165.31	12,369.17
Development	7,508.51	10,264.17	17,772.68
Processing Gains	25,940.68	-	25,940.68
Lime Allowance	-	4,490.27	4,490.27
Lime Penalties	-	-919.80	-919.80
Grading Allowances	-	3,928.98	3,928.98
V_2O_5 Payments:			
Base	6,498.48	-	6,498.48
Processing Gains	2,355.68	-	2,355.68
Total Proceeds	$96,473.18	$98,778.13	$195,251.31
Royalty @ 5%	$ 4,823.65	$ 4,938.91	$ 9,762.56

The last statement included in the above covered September 1962 shipments, the royalty for which was received on October 16, 1962.

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

(1) Proper royalty has been paid on reported production; and

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

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OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE

DMEA
DEPARTMENT OF THE INTERIOR
SEP 12 1958
REGION III
DENVER, COLORADO

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OPTION AGREEMENT

156521
STATE OF UTAH
COUNTY OF EMERY
FILED AND RECORDED FOR
MAR 27 9 42 AM '59
IN BOOK 123 PAGE 111
COUNTY RECORDER

THIS AGREEMENT, made and entered into this 11th day of March, 1958, by and between PACIFIC URANIUM MINES COMPANY, a Nevada corporation, hereinafter referred to as "Pacific", and UNION CARBIDE CORPORATION, a New York corporation, hereinafter referred to as "Union Carbide",

W I T N E S S E T H :

WHEREAS, Pacific is the owner of the lessee's interest in the following leases:

(a) Mineral Lease dated August 18, 1954 between Ray Wareham, Maribelle B. Wareham, Irvin Olsen and Rhoda W. Olsen as Lessors and Haile Mines, Inc., as Lessee, embracing the following unpatented lode mining claims situate in Emery County, Utah:

Red No. 1 to 5 inclusive and Red Claim No. 6. These claims were located as lode claims by Lessors on the 26th day of July, 1954, and copies of the said notices of location were recorded in the office of the County Recorder of Emery County, Utah, on the 26th day of July, 1954, in Book J-29, Pages 180 to 185 inclusive. Notices of lease application on said claims were also posted on said claims on July 24, 1954, and copies of said notices of lease application were recorded in the office of the County Recorder of Emery County, Utah, on July 26, 1954, Entry Nos. 94908 to 94913 inclusive;

which lease was amended by a two page document entitled Amendment, undated, amending paragraph 3 of said lease and by Ratification and Further Agreement dated August 9, 1954 and by Amendment of Lease Agreement dated January 15, 1958, and

Read with J. W. Trevorrow memo 11/20/58

which lease was assigned by Haile Mines, Inc., to Pacific by Assignment dated July 1, 1955.

(b) Mineral Lease dated August 18, 1954 between Ray Wareham, Maribelle B. Wareham, Ernest C. Wareham, Jeanne C. Wareham, Lyman P. Brown and Kathrine J. Brown as Lessors and Haile Mines, Inc., as Lessee, embracing the following unpatented lode mining claims situate in Emery County, Utah:

> Wills No. 1 to 9 inclusive, Jeannie No. 1 and Ajax No. 1 to 22 inclusive, located May 7, 1954, the notices of location of which were recorded in the office of the County Recorder of Emery County, Utah, May 24, 1954 in book J-21, pages 567 to 598 inclusive, Entry Nos. 090467 to 090498 inclusive;

which lease was amended by Amendment of Lease Agreement dated January 15, 1958 and which lease was assigned by Haile Mines, Inc., to Pacific by Assignment dated July 1, 1955.

AND WHEREAS, Pacific desires to grant unto Union Carbide an option to obtain a sublease of the claims described in paragraphs (a) and (b) above, sometimes referred to herein as "said claims", upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and in consideration of the sum of Ten Dollars paid to Pacific by Union Carbide, the receipt and sufficiency of which is hereby acknowledged, IT IS AGREED AS FOLLOWS:

1. Union Carbide shall have until ~~February 20, 1958~~ APRIL 1, 1958 to complete an examination of the title to said claims. On or

B.M.S.
K.R.

OK K.R. before ~~February 20~~ APRIL 1, 1958, Union Carbide shall notify Pacific in writing setting forth whether or not, in Union Carbide's sole opinion, Pacific's title to said claims is satisfactory. If title is not satisfactory, this option agreement shall thereupon terminate. If title is satisfactory, Union Carbide shall forthwith pay unto Pacific the sum of $2,400.00 as further consideration for this option. Union Carbide's approval of title shall in no way diminish or affect any warranties or representations made by Pacific as to title, and any such warranties and representations shall continue in full force and effect after the approval of title by Union Carbide.

2. In the event that title is approved by Union Carbide, Union Carbide shall have the exclusive right and option during the option period to obtain a lease of said claims. The option period shall commence on the date that Union Carbide gives written notice of approval of title and shall expire 120 days from said date. Union Carbide shall have the right to extend the option period for an additional period of thirty (30) days by giving written notice to Pacific of its desire to extend the option period and by paying to Pacific the sum of $1,200.00 prior to the expiration of said 120 day option period.

3. During the option period, Union Carbide shall be entitled to the exclusive possession of said claims and Union Carbide shall have the right to conduct drilling and exploratory operations thereon and to remove not in excess of 50 tons of uranium bearing ores therefrom for testing purposes. In the event that ore is removed, Union Carbide shall pay to the owners of the claims from which the ore is removed the royalty required by said leases, or either of them.

4. In the event that title is approved by Union Carbide, Union Carbide agrees to pay unto the owners of said claims the minimum royalty required by said leases coming due during the option period, commencing with the minimum royalty payment due ~~February~~ March 20, 1958; provided, however, that if the option period shall expire on the date that a minimum royalty payment is due, Union Carbide shall not be required to make such minimum royalty payment. Union Carbide shall have the right at any time during the option period to terminate this option agreement by giving written notice of termination to Pacific and in such event Union Carbide shall be relieved of all of its obligations hereunder; provided, however, that Union Carbide shall be required to pay the minimum royalty payments required by said leases for the calendar month during which the termination of this option occurs.

K.R.

5. This option may be exercised by Union Carbide at any time during the option period, or the extension thereof, by paying unto Pacific the additional sum of $7,600.00. In the event that the option is exercised, Pacific shall immediately execute and deliver unto Union Carbide a sublease in the form of the instrument marked Exhibit A, attached hereto and by this reference made a part hereof.

6. Pacific warrants that said leases are in full force and effect, that Pacific is the owner of the lessee's interest in and to said leases, free and clear of all liens, encumbrances and royalty interests, except the royalty interest of the Defense Minerals Exploration Administration created pursuant to Defense Minerals Exploration Administration Contract

No. 3928. Pacific further warrants that it has complied with all of the terms and provisions of said leases and that no defaults exist thereunder. Pacific further warrants the title to said claims against all persons claiming by, through or under Pacific.

7. This option may not be assigned by Union Carbide without the prior written consent of Pacific; provided, however, that this option may be assigned to a wholly owned subsidiary of Union Carbide or to a corporation which succeeds to substantially all of the assets of Union Carbide.

8. Any and all written notice to be given hereunder to Pacific may be given by mailing the same by United States Registered Mail, return receipt requested, to Pacific Uranium Mines Company, 292 South La Cienega Boulevard, Beverly Hills, California; and to Union Carbide notice may be given by mailing the same by United States Registered Mail, return receipt requested, to Union Carbide Corporation, in care of its division, Union Carbide Nuclear Company, P. O. Box 1049, Grand Junction, Colorado. Any such notice shall be deemed given as of the day that the same is deposited in the mail with sufficient postage attached. Any payments to be made by Union Carbide to Pacific may be made by Union Carbide's check payable to Pacific, mailed to Pacific at the aforesaid address by United States Registered Mail, return receipt requested, and any such payment shall be deemed made as of the day that the same is deposited in the mail with sufficient postage attached.

9. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of the parties.

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

PACIFIC URANIUM MINES COMPANY

By Bernard M. Silbert
President

ATTEST: Henry Klabok
Secretary

UNION CARBIDE CORPORATION

By Kenneth Rush
Vice President

ATTEST: J. A. Moore
Asst. Secretary

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } ss.

On the 11TH day of MARCH, 1958, personally appeared before me Bernard Silbert who being by me duly sworn, did say, that he is the President of Pacific Uranium Mines Company, and that said instrument was signed in behalf of said corporation by resolution of its board of directors and said Bernard Silbert acknowledged to me that said corporation executed the same.

My commission expires: 11-11-58

Barbara B. Baldwin
Notary Public
Residing at LOS ANGELES CALIF.

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.

On the 24th day of March, 1958, personally appeared before me Kenneth Rush who being by me duly sworn, did say, that he is the Vice President of Union Carbide Corporation, and that said instrument was signed in behalf of said corporation by resolution of its board of directors and said Kenneth Rush acknowledged to me that said corporation executed the same.

My commission expires: March 30, 1959

E. Madelyn Carpenter
Notary Public
Residing at Mount Vernon N.Y.

E. MADELYN CARPENTER
Notary Public, State of New York
No. 60-0574900
Qualified in Westchester County
Cert. Filed in New York County
Commission Expires March 30, 1959

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"EXHIBIT A"

S U B L E A S E

THIS AGREEMENT, made and entered into this _____ day of _____, 1958, by and between PACIFIC URANIUM MINES COMPANY, a Nevada corporation, hereinafter referred to as "Pacific", and UNION CARBIDE CORPORATION, a New York corporation, hereinafter referred to as "Union Carbide",

W I T N E S S E T H :

WHEREAS, Pacific is the owner of the lessee's interest in the following leases:

(a) Mineral Lease dated August 18, 1954 between Ray Wareham, Maribelle B. Wareham, Irvin Olsen and Rhoda W. Olsen as Lessors and Haile Mines, Inc., as Lessee, embracing the following unpatented lode mining claims situate in Emery County, Utah:

> Red No. 1 to 5 inclusive and Red Claim No. 6. These claims were located as lode claims by Lessors on the 26th day of July, 1954, and copies of the said notices of location were recorded in the office of the County Recorder of Emery County, Utah, on the 26th day of July, 1954, in Book J-29, Pages 180 to 185 inclusive. Notices of lease application on said claims were also posted on said claims on July 24, 1954, and copies of said notices of lease application were recorded in the office of the County Recorder of Emery County, Utah, on July 26, 1954, Entry Nos. 94908 to 94913 inclusive;

which lease was amended by a two page document entitled Amendment, undated, amending paragraph 3 of said lease and by Ratification and Further Agreement dated August 9, 1954 and by Amendment of Lease Agreement dated January 15, 1958, and

which lease was assigned by Haile Mines, Inc., to Pacific by Assignment dated July 1, 1955.

(b) Mineral Lease dated August 18, 1954 between Ray Wareham, Maribelle B. Wareham, Ernest C. Wareham, Jeanne C. Wareham, Lyman P. Brown and Kathrine J. Brown as Lessors and Haile Mines, Inc., as Lessee, embracing the following unpatented lode mining claims situate in Emery County, Utah:

> Wills No. 1 to 9 inclusive, Jeannie No. 1 and Ajax No. 1 to 22 inclusive, located May 7, 1954, the notices of location of which were recorded in the office of the County Recorder of Emery County, Utah, May 24, 1954 in Book J-21, Pages 567 to 598 inclusive, Entry Nos. 090467 to 090498 inclusive;

which lease was amended by Amendment of Lease Agreement dated January 15, 1958 and which lease was assigned by Haile Mines, Inc., to Pacific by Assignment dated July 1, 1955.

AND WHEREAS, Pacific desires to grant unto Union Carbide a sublease of the claims described in paragraphs (a) and (b) above, sometimes referred to herein as "said claims", upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and in consideration of the sum of Ten Dollars paid to Pacific by Union Carbide, the receipt and sufficiency of which is hereby acknowledged, IT IS AGREED AS FOLLOWS:

1. Pacific does hereby exclusively sublease and sublet said claims unto Union Carbide for the purpose of exploring,

developing, mining, extracting, removing and operating for and producing for process or sale, all metals, metalliferous substances and minerals of every kind and nature together with the right to use so much of the surface of said claims as may be reasonably necessary or desirable or convenient for the conduct of lessee's operations on said claims and the right to use any surface or underground water now existing or subsequently discovered or developed on or under said claims, together with the right, license and easement to construct and maintain buildings, shops, plants and structures of all kinds, construct and maintain roads and road ways and construct and maintain ore bins, shafts, inclines, tunnels, drifts, open pits, waste dumps and ore stockpiles on said claims, together with the right, easement and license to construct and maintain on said claims pipelines, telephone lines, electric transmission lines and facilities for other utilities and the right to construct thereon facilities for operation and use of aircraft and the maintenance thereof.

2. The term of this sublease shall commence on the date hereof and shall continue so long as either of said leases shall remain in effect. Both of said leases provide for a primary term ending July 1, 1968, at 12:00 o'clock noon and give the lessee the right to extend the term for an additional term of five years. If Union Carbide desires to extend the term of said leases, or either of them, Union Carbide shall have the right to give the notice or notices required to obtain such extension or extensions, and Pacific hereby irrevocably constitutes and appoints Union Carbide as its attorney in fact to give such notice or notices; provided, however, that Pacific

shall also have the right to give such notice or notices at any time that it elects to extend the terms of said leases, or either of them.

3. Union Carbide represents and warrants that it has read and examined said leases and said amendments thereto and is familiar with the terms and provisions thereof.

4. Union Carbide agrees that it will well and truly observe each and every condition and obligation to be kept and observed by the lessee under the terms and provisions of said leases, including but not limited to the payment of royalties specified therein, both minimum and percentage. In this connection, Union Carbide hereby agrees to indemnify and hold Pacific harmless from any and all liability which may accrue to Pacific by reason of any default under the terms and conditions of said leases caused or permitted by Union Carbide and occuring after the date hereof.

5. In addition to the obligation assumed by Union Carbide to comply with the terms of said leases, Union Carbide shall and hereby agrees to indemnify, protect and save harmless Pacific from and against the following specific claims, demands and damages in connection with Union Carbide's work and operation hereunder, to-wit:

(1) To property of third persons;

(2) To third persons for injury or death;

(3) Liens or lien claims on account of labor performed or materials furnished to the property at the instance of Union Carbide.

Union Carbide agrees to secure and maintain during the continuance of this sublease the insurance required by paragraph 7 of each of said leases and to have Pacific named as an insured

thereunder. Union Carbide agrees to post and keep posted the notices required by paragraph 8 of each of said leases.

6. Union Carbide agrees to comply with all the terms and provisions of all applicable laws of the State of Utah and the United States of America, applying to social security, unemployment compensation, wages, hours and conditions of labor and to indemnify and hold Pacific harmless from the payment of any damages occasioned by Union Carbide's failure to comply with said laws. Union Carbide assumes full responsibility in case of accident to persons employed by Union Carbide on the leased premises and agrees to hold Pacific harmless from any suits or injury arising out of such employment.

7. Union Carbide agrees to deliver to Pacific copies of all settlement sheets and progress reports furnished to the owners of said claims in accordance with paragraph 11 of each of said leases.

8. Pacific or its agent, duly authorized in writing, shall have the right to enter upon said premises at all reasonable times in order to examine, inspect, survey and take samples provided, however, that said inspection shall not interfere with or hinder the operations of Union Carbide hereunder. Such inspection shall be at the sole risk of Pacific and its agents.

9. Both parties agree that if either of them serves any written notice upon the owners of said claims that the party serving such notice will simultaneously serve a copy thereof upon the other party of this agreement.

10. The manner and method of performing operations upon the leased premises shall be in the sole discretion of Union Carbide, and Pacific shall have no voice or control in the management of such operations. Union Carbide shall have

no obligation, express or implied, to perform exploration, development or other operations upon the leased premises, except the obligation to perform annual assessment work as required by paragraph 6 of each of said leases.

11. Union Carbide agrees to pay unto Pacific 40% of Union Carbide's net profits from its operations upon the leased premises. The term "net profits" is hereby defined as the gross value of ore mined and removed from the said claims, less all costs of exploration, development and mining. For the purposes of computing net profits, the claims embraced within both of said leases shall be considered as one unit. So long as ore prices shall be established for uranium and vanadium bearing ore by Atomic Energy Commission Domestic Uranium Circular or cirulars, "gross value" ~~or~~ of uranium and vanadium bearing ore shall be the amount applicable according to any such circular in effect at the time the ore is removed from said claims, including all premiums, bonuses and transportation and development allowances, if any are received; and if such Commission's rates for ore shall cease to be in effect, gross value of uranium and vanadium bearing ore removed from said claims thereafter shall be the fair market value of uranium and vanadium bearing ore of like grade and quality prevailing in the area of said claims at the time of removal from said claims. Determination of uranium and vanadium content for purposes of determining the gross value shall be made on a calendar monthly basis using a weighted arithmetic average of uranium and vanadium content of all lots of ore mined and removed from said claims during said calendar month. "Gross value" of other metalliferous minerals shall be the price

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received by Union Carbide therefor if the ore is sold, but if such ore shall not be sold but shall be processed by Union Carbide to recover such other metalliferous minerals in the initial processing of such ore then the gross value of such other metalliferous minerals shall be the fair market value thereof contained in crude ore in the area of said claims at the time of removal from said claims. The value of other metalliferous minerals extracted and removed from tailings shall not be included in gross value. Costs of exploration, development and mining shall include, but not by way of limitation, the following:

(a) The salaries and expenses of engineers, geologists and supervisors connected with the exploration, development and mining of said claims. In the event any of said engineers, geologists or supervisors are engaged less than full time in connection with the work upon said claims, a proportionate part of their salaries and expenses shall be included.

(b) Drilling costs.

(c) Costs of necessary access roads, drilling roads and drillsites.

(d) Costs of analysis of cores and cuttings and probing of drill holes and the costs of reproducing and maintaining drill logs.

(e) Costs of mapping and surveying.

(f) All royalties, including minimum royalties and percentage royalties, paid to the owners of said claims and/or their successors in interest, including all minimum and percentage royalties paid by Union Carbide during the option period preceding the delivery of this sublease, and all royalties paid to the Defense Minerals Exploration Administration, hereinafter referred to as the "DMEA". Amounts paid to Pacific to acquire and to exercise Union Carbide's option to acquire this sublease and to extend the option period shall not be included as a item of cost.

(g) All development costs including surface and underground installations.

(h) The direct costs of mining, including labor, amounts paid to contractors, supplies and equipment.

(For the purposes of this subparagraph "h", all hand tools, such as picks and shovels and other small items shall be considered supplies. Equipment shall be deemed large items of mechanical equipment such as bulldozers, slushers, etc. The purchase price of supplies shall be included as an item of cost. If equipment is rented, the rental paid therefor shall be included as an item of cost. If equipment belonging to Union Carbide is used, the reasonable rental value of such equipment, as provided by the then current Rental Rates Catalog published by the American Equipment Distributors of Chicago, Illinois, shall be included as an item of cost. The purchase price of equipment purchased by Union Carbide shall not be included as an item of cost unless it is mutually agreed upon by the parties.)

(i) The cost of hauling the mined ore to the mill where the same is processed; provided, however, that if said ore is hauled more than 50 miles, only the expense of hauling ore for the first 50 miles shall be included.

(j) The costs of performing and recording the performance of annual assessment work for the mining property.

(k) Taxes assessed against the mining property, production therefrom, and the facilities used therein, including all state and local taxes thereon. There shall not be included any taxes upon or measured by the work or assets of Union Carbide or Pacific except as the same relate to the mining property.

(l) 7½% of the costs itemized above shall be charged as overhead expense and shall be in lieu of any other overhead expense. Provided, however, that no percentage overhead shall be charged on amounts paid to contractors performing exploration, development and mining work.

Union Carbide shall submit to Pacific on or before the 20th day of January, April, July and October of each year, a report setting forth, in reasonable detail, the amount and gross value of ore mined and removed and the cost of exploration, development and mining work during the preceding calendar quarter and the computation of Pacific's 40% share of net profits for such period. At the time such report is submitted to Pacific, Union Carbide shall pay to Pacific its 40% share of net profits earned during the period covered by such report. No changes in ownership of Pacific's 40% share of net profits shall be binding upon Union Carbide until a certified copy of the instrument of transfer has been delivered to Union Carbide. In the event of any change in ownership of Pacific's 40% share of net profits, Union Carbide may withhold further payments until all persons entitled to any portion of such payments shall, in a recordable instrument filed with Union Carbide, consent to the terms of this sublease and designate a mutually acceptable bank to receive all further payments due hereunder, and execute such division or transfer orders as may be required by said bank. Any payments due hereunder may be made by check of Union Carbide and the delivery or tender of such check shall have the same effect as the delivery or tender of cash. In the event that the operations upon said claims during any calendar quarter shall result in a net loss, Pacific shall not be responsible or liable for any portion of said net loss, but said net loss or losses shall be accummulated and carried forward and deducted from any net profits thereafter earned.

12. Pacific has obtained a loan from the DMEA, represented by DMEA Contract No. 3928. Contemporaneously

with the execution of this sublease Pacific agrees to deliver unto Union Carbide true and complete copies of all of its contracts and agreements with the DMEA together with a statement certified to be correct by an officer of Pacific setting forth in detail all amounts received from the DMEA and setting forth the disposition of the funds so received. Pacific represents and warrants that $ 32,633.26 of the amount of such DMEA loan has not been disbursed by the DMEA. Union Carbide shall have the right, but shall not be obligated, to obtain the remaining balance of said loan from the DMEA. In computing net profits, any amounts obtained by Union Carbide from the DMEA shall be treated as gross income from mining.

13. Union Carbide may at any time, or from time to time, surrender this sublease as to either or both of said leases by giving Pacific written notice designating the lease or leases as to which this sublease is surrendered, and any such surrender shall become effective forty-five (45) days after such notice is given. Within said 45 day period, Union Carbide shall also record in the Records of Emery County, Utah, a quit claim deed conveying unto Pacific all of Union Carbide's interest in and to the lease or leases surrendered and the claims embraced therein. Any such surrender shall relieve Union Carbide of and from all of its obligations hereunder with respect to the lease or leases surrendered, including its obligation to pay minimum royalties coming due after the effective date of such surrender and the obligation to perform assessment work upon the claims embraced within the lease or leases surrendered; provided, however, that Union Carbide shall be required to perform the annual assessment work upon the

claims embraced within the lease or leases surrendered for the annual assessment year ending July 1 following the giving of such notice of surrender. For example, if notice of surrender is given June 15, 1960, Union Carbide shall be required to perform the annual assessment work for the assessment year ending July 1, 1960, but not for subsequent assessment years. Upon any such surrender, Union Carbide shall have the right and privilege within 90 days from the date of such surrender to remove from the premises of the claims embraced within the lease or leases surrendered, all machinery, equipment, supplies and improvements placed thereon by Union Carbide, including without limitation, underground and surface facilities, structures, mine rails, ore bins, fixtures and timbers not in place. Union Carbide shall not have the right to remove mine support shafts and timbers in place.

14. The relationship of the parties hereto shall be that of sublessor and sublessee and nothing herein contained shall be construed to constitute said relationship a partnership or joint venture.

15. This sublease may not be assigned in whole or in part by Union Carbide without the prior written consent of Pacific; provided, however, that this sublease may be assigned to a wholly owned subsidiary of Union Carbide or to a corporation which succeeds to substantially all of the assets of Union Carbide. Nothing herein shall be construed to prevent Union Carbide from having exploration, development and/or mining work upon said claims performed by independent contractors, and Union Carbide specifically reserves the right to have said work performed by independent contractor and the right to compensate contractors performing mining work on the basis of the amount,

grade and/or value of ore mined. Union Carbide agrees that before selecting any contractor to perform mining work upon said claims, Union Carbide will give Pacific written notice setting forth the name of the proposed contractor and the terms of the proposed contract. Within 10 days after such notice is given, Pacific shall have the right to suggest the name or names of other competent contractors who will perform the work at a lower rate of compensation. Before entering into a contract, Union Carbide will give due consideration to the contractors suggested by Pacific, and Union Carbide will exercise good faith in selecting contractors to perform mining work and will always endeavor to have mining work performed at the lowest price obtainable consistent with the selection of a competent and financially responsible contractor. It is understood by Pacific that Union Carbide's opinion as to the competency of a particular contractor may not correspond with the opinion of Pacific, and in such instances the final decision shall be made by Union Carbide in its absolute discretion.

16. If Union Carbide shall fail to make any payment required under the terms and provisions of said leases, or either of them, Pacific may give Union Carbide written notice of termination setting forth the payment or payments then in default and unless Union Carbide shall make the payment or payments specified in such notice within 15 days after such notice is given, this sublease shall be terminated. If Union Carbide shall fail to perform any of its other covenants hereunder, Pacific may give Union Carbide written notice of termination setting forth the default or defaults complained of and if such default or defaults do in fact exist and are not remedied within 30 days from the date such notice is given, this sublease shall be terminated.

17. Pacific warrants that said leases are in full force and effect, that Pacific is the owner of the lessee's interest in and to said leases, free and clear of all liens, encumbrances and royalty interests, except the royalty interest of the DMEA created pursuant to DMEA Contract No. 3928. Pacific further warrants that it has complied with all of the terms and provisions of said leases and that no defaults exist thereunder. Pacific further warrants the title to said claims against all persons claiming by, through or under Pacific. Pacific warrants that it will not surrender said leases, or either of them without the written consent of Union Carbide, and that it will not do or perform any act that would constitute a default under said leases or either of them.

18. This agreement shall be binding upon and inure to the benefit of the successors and assigns of the parties.

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

PACIFIC URANIUM MINES COMPANY

By_____
President

ATTEST:

_____
Secretary

UNION CARBIDE CORPORATION

By_____

ATTEST:

_____

STATE OF CALIFORNIA)
) ss.
COUNTY OF LOS ANGELES)

On the _____ day of _____, 1958, personally appeared before me Bernard Silbert who being by me duly sworn, did say, that he is the President of Pacific Uranium Mines Company, and that said instrument was signed in behalf of said corporation by resolution of its board of directors and said Bernard Silbert acknowledged to me that said corporation executed the same.

My commission expires:

_____
Notary Public
Residing at _____

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

On the _____ day of _____, 1958, personally appeared before me _____ who being by me duly sworn, did say, that he is the _____ of Union Carbide Corporation, and that said instrument was signed in behalf of said corporation by resolution of its board of directors and said _____ acknowledged to me that said corporation executed the same.

My commission expires:

_____
Notary Public
Residing at _____

ASSIGNMENT OF LEASE

THIS ASSIGNMENT OF LEASE, made and entered into this 1st day of July, 1955, by and between:

HALPER CONSTRUCTION CORP., a California Corporation, hereinafter referred to as "Halper";

and

PACIFIC URANIUM MINES COMPANY, a corporation, hereinafter referred to as "Pacific".

WITNESSETH:

This Agreement is made with reference to the following facts:

1. On or about the 18th day of August, 1954, a Mineral Lease was entered into between Haile Mines, Inc., a Delaware Corporation, designated therein as Lessee, and Ray Wareham and Maribelle B. Wareham, husband and wife, and Ervin Olsen and Rhoda W. Olsen, husband and wife, designated therein as Lessors, covering the following described identified, unpatented lode mining claims situated in Emery County, State of Utah:

Red No. 1 to 5 inclusive and Red Claim No. 6. These claims were located as lode claims by lessors on the 26th day of July, 1954, and copies of the said notices of location were recorded in the office of the County Recorder of Emery County, Utah, on the 26th day of July, 1954, in Book J29 Pages 180 and 185 inclusive. Notices of lease application on said claims were also posted on said claims on July 24, 1954, and copies of said notices of lease application were recorded in the office of the County Recorder of Emery County, Utah, on July 26, 1954, entry Nos. 94908 to 94913 inclusive.

2. On or about the 18th of August, 1954, a Mineral Lease was entered into between Haile Mines, Inc., a Delaware Corporation, designated therein as Lessee, and Ray Wareham and Maribelle B. Wareham, husband and wife, and Earnest C. Wareham and Jeanne C. Wareham, husband and wife, acting by and through Ray Wareham, their agent and attorney in fact, and

Lyman P. Brown and Catherine J. Brown, husband and wife, designated therein as Lessors, covering the following described identified, unpatented lode mining claims situated in Emery County, State of Utah:

> Wills No. 1 to No. 9 inclusive, Jeannie No. 1 and Ajax No. 1 to No. 22 inclusive located May 7, 1954, the notices of location of which were recorded in the office of the County Recorder of Emery County, Utah, May 24, 1954 in Book J-21 at pages 567 to 598 inclusive, entry numbers 090467 to 090498 inclusive.

3. Pursuant to an option granted to it, Halper did on the first day of June, 1955, exercise an option whereby there was transferred, assigned and set over to Halper the above described Mineral Leases.

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

FIRST: For a valuable consideration, the receipt whereof is hereby acknowledged, Halper does hereby assign, transfer and set over to Pacific the afore described Mineral Leases.

SECOND: Halper does hereby represent and warrants to Pacific that it has the right to assign the above described Mineral Leases to Pacific, and that as of the date of this agreement it is not in default under the terms and provisions of either of said Mineral Leases. Pacific agrees to assume all of the lessee's obligations under the terms and provisions of said Mineral Leases commencing as of July 1, 1955.

THIRD: Halper does hereby indemnify and hold Pacific harmless from and of all liability by reason of any manner or thing occurring in connection with the aforesaid Mineral Leases prior to July 1, 1955.

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

PACIFIC URANIUM MINES COMPANY	HALPER CONSTRUCTION CORP.
By A. E. Hurley, President	By M. Halper
Its	Its Pres.
By Irving Klubok, Treasurer	By Marjorie Williams
Its	Its Asst Sec

BMS:k 7/11/55

STATE OF CALIFORNIA)
) ss.
COUNTY OF LOS ANGELES)

On the 11th day of July, 1955, before me, the undersigned, a Notary Public in and for said County and State, personally appeared L. M. HALPER, known to me to be the PRESIDENT and MARJORIE WILLIAMS, known to me to be the ASST-SECY of HALPER CONSTRUCTION CORP., which executed the within agreement, known to me to be the persons who executed the within agreement on behalf of said corporation, and acknowledged to me that such corporation executed the same and affixed its seal freely and voluntarily by authority of its Board of Directors, and that the seal affixed thereto is the corporate seal of such corporation.

Notary Public in and for said County and State

My Commission Expires Dec. 8th 1957

STATE OF CALIFORNIA)
) ss.
COUNTY OF LOS ANGELES)

On the 20th day of July, 1955, before me, the undersigned, a Notary Public in and for said County and State, personally appeared A. E. Hurley, known to me to be the President and Irving Klubock, known to me to be the Treasurer of PACIFIC URANIUM MINES COMPANY, which executed the within agreement, known to me to be the persons who executed the within agreement on behalf of said corporation, and acknowledged to me that such corporation executed the same and affixed its seal freely and voluntarily by authority of its Board of Directors, and that the seal affixed thereto is the corporate seal of such corporation.

Notary Public in and for said County and State

My Commission Expires July 18, 1959

ASSIGNMENT OF LEASE

THIS ASSIGNMENT OF LEASE, made and entered into this 1st day of June, 1955, by and between

HAILE MINES, INC., a Delaware corporation, hereinafter referred to as Haile ,

and

HALPER CONSTRUCTION CORP., a California Corporation, hereinafter referred to as Halper ,

W I T N E S S E T H:

This Agreement is made with reference to the following facts:

1. Haile did on or about the 18th day of August, 1954, enter into a mineral lease wherein Ray Wareham and Maribelle B. Wareham, husband and wife, and Ervin Olsen and Rhoda W. Olsen, husband and wife, are designated as Lessors, and Haile is designated as Lessee, covering the following described identified unpatented lode mining claims situated in Emery County, State of Utah:

> Red No. 1 to 5 inclusive and Red Claim No. 6. These claims were located as lode claims by lessors on the 28th day of July, 1954, and copies of the said notices of location were recorded in the office of the County Recorder of Emery County, Utah, on the 26th day of July, 1954, in Book J29 Pages 180 and 185 inclusive. Notices of lease application on said claims were also posted on said claims on July 24, 1954, and copies of said notices of lease application were recorded in the office of the County Recorder of Emery County, Utah, on July 26, 1954, entry Nos. 94908 to 94913 inclusive.

2. Haile did on or about the 18th day of August, 1954, enter into a mineral lease wherein Ray Wareham and Maribelle B. Wareham, husband and wife, and Earnest C. Wareham and Jeanne C. Wareham, husband and wife, acting by and through Ray Wareham, their agent and attorney in fact, and Lyman P. Brown and Catherine J. Brown, husband

and wife, are designated as Lessors, and Haile is designated as Lessee, covering the following identified unpatented lode mining claims situated in Emery County, State of Utah:

> Willis No. 1 to No. 9 inclusive, Jeannie No. 1 and Ajax No. 1 to No. 22 inclusive located May 7, 1954, the notices of location of which were recorded in the office of the County Recorder of Emery County, Utah, May 24, 1954 in Book J-21 at pages 567 to 598 inclusive, entry numbers 090467 to 090498 inclusive.

3. Haile did on the 26th day of March, 1955 grant an option to Halper for an assignment and transfer of the above described mineral leases.

4. Halper did on the 1st day of June, 1955 exercise the option granted to it for an assignment of the above described mineral leases and did upon that day pay to Haile the sum of Fifty Thousand Dollars ($50,000.00), receipt whereof is hereof acknowledged by Haile.

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

FIRST: For a valuable consideration, the receipt whereof is hereof acknowledged, Haile does hereby assign, transfer and set over to Halper the afore described mineral leases.

SECOND: Haile represents and warrants to Halper that it has the right to assign the above described mineral leases to Halper and that as of the date of this agreement it is not in default under the terms and provisions of either of said mineral leases. Halper agrees to assume all of the lessee's obligations under the terms and provisions of said mineral leases commencing as of June 1, 1955.

THIRD: Haile does hereby indemnify and hold Halper harmless from and of all liability by reason of any manner or thing occurring in connection with the aforesaid mineral leases prior to June 1, 1955.

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

HALPER CONSTRUCTION CORP.	HAILE MINES, INC.
By _____ President	By _____ President
By _____ Secretary	By _____ Secretary

STATE OF NEW YORK)
) SS
COUNTY OF NEW YORK)

On the 29th day of June, 1955, before me, the undersigned, a Notary Public, personally appeared H. S. [illegible], known to me to be the President, and C. R. [illegible] known to me to be the Secretary of HALLE MINES, INC., which executed the within agreement, known to me to be the persons who executed the within agreement on behalf of said corporation, and acknowledged to me that such corporation executed the same and affixed its seal freely and voluntarily by authority of its Board of Directors, and that the seal affixed thereto is the corporate seal of such corporation.

Gene E. Clark
Notary Public in and for said
County and State.

My Commission Expires _____

STATE OF CALIFORNIA)
) SS.
COUNTY OF LOS ANGELES)

On the 14TH day of JUNE, 1955, before me, the undersigned, a Notary Public, personally appeared _____ L. M. HALPER, known to me to be the President, and _____ BETTY McGOWAN, known to me to be the Asst Secretary of HALPER CONSTRUCTION CORP., which executed the within agreement, known to me to be the persons who executed the within agreement on behalf of said corporation, and acknowledged to me that such corporation executed the same and affixed its seal freely and voluntarily by authority of its Board of Directors, and that the seal affixed thereto is the corporate seal of such corporation.

Walter N. Peters
Notary Public in and for said
County and State.

My Commission Expires _____

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Book 177 Page 444-54

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[illegible] SUNG
[illegible] COUNTY

By _____

RATIFICATION AND FURTHER AGREEMENT

WHEREAS, RAY WAREHAM and ERVIN OLSEN on August 6, 1954, made and executed a certain option to HAILE MINES INC., a corporation covering unpatented uranium claims Red Nos. 1 to 5 inclusive and Red Claim No. 6; and

WHEREAS, the parties have discovered one or two minor corrections to be made in the agreement attached to said option and the wives of the optioners also desire to be bound by the terms of said option;

NOW, THEREFORE, in consideration of the premises and of the sum of $5.00, receipt of which is hereby acknowledged, it is hereby agreed:

1. In place of the words "in the near vicinity" appearing in the second line of paragraph No. 10 on page 5 of the said unsigned lease there shall be substituted the following words: "lying in whole or in part within the outer boundaries".

2. The following sentence appearing in paragraph No. 11 on page 5 of said mineral lease shall be deleted: "All maps and log books so made are to become the property of the lessors at the termination of this lease and to be turned to them in good condition."

3. The undersigned Maribelle B. Wareham the wife of Ray Wareham and Rhoda W. Olsen the wife of Ervin Olsen hereby ratify and confirm and agree to be bound by the option executed on August 6, 1954, as hereinabove set forth and they also join in the modifications hereinabove enumerated for the proposed lease. Ervin Olsen further certifies that he is one and the same person as Ervin Olson.

Dated this 9th day of August, 1954.

Ray Wareham — Maribelle B. Wareham

Ervin Olsen — Rhoda W. Olsen

OPTION

For the sum of $10.00 receipt of which is hereby acknowledged, we, RAY WAREHAM and ERVIN OLSEN, of Ferron, Utah, hereby grant to Haile Mines, Inc., a corporation, an option to lease the mining claims described in the annexed unsigned lease and in accordance with the terms and provisions therein set forth. In order to exercise this option, optionee must notify Ray Wareham for optionors in writing at Ferron, Utah, on or before August 20th, 1954, at 6 p.m. and a lease on the form attached will then be executed by the parties within ten days thereafter. Optionees may enter upon the said mining claims for inspection sampling and prospecting at any time prior to the time said lease is executed, but they shall do no drilling during said interval.

Dated this 6th day of August, 1954.

/ Ray Wareham

/ Ervin Olsen

MINERAL LEASE

This mineral lease made and entered into this 18th day of August, 1954, by and between Ray Wareham and Maribelle B. Wareham, husband and wife, and Ervin Olsen and Rhoda W. Olsen, husband and wife, all of Ferron, Utah, Lessors and Haile Mines Inc., a corporation of the State of Delware, with its principal place of business at 500 - 5th Avenue, New York 36, New York, Lessee;

WITNESSETH:

1. That for and in consideration of the rents and covenants to be paid and performed by lessee, lessors hereby lease to lessee and lessee leases from lessors the following identified unpatented lode mining claims situated in Emery County, State of Utah:

> Red No. 1 to 5 inclusive and Red Claim No. 6. These claims were located as lode claims by lessors on the 26th day of July, 1954, and copies of the said notices of location were recorded in the office of the County Recorder of Emery County, Utah, on the 26th day of July, 1954, in Book J29 Pages 180 and 185 inclusive. Notices of lease application on said claims were also posted on said claims on July 24, 1954, and copies of said notices of lease application were recorded in the office of the County Recorder of Emery County, Utah, on July 26, 1954, entry Nos. 94908 to 94913 inclusive.

PROOF READ

It is understood and agreed that if said claims are subject to leasing under Circular 7 of the Atomic Energy Commission program that lease applications will be pursued by lessors with due diligence, and subleases will be executed to lessee.

2. Forthwith upon the execution of this lease, lessee agrees to pay to lessors the sum of $1,000.00. This sum is paid and received as a special consideration for the execution of this lease and the same does not constitute the payment of any royalty.

3. Lessee shall pay to lessors a flat fifteen per cent royalty on all ore mined and sold from said premises based on the net mill returns. As used herein the term "net mill" returns means the total amount received from the ore purchasing agency for

all ores marketed and shall also include any discovery and production bonuses paid under the AEC program. The cost of haulage of ore to the market shall be borne by the lessee and if any government haulage allowance is payable, such haulage allowance shall belong to the lessee and shall not be reckoned as a part of the net mill returns. If any development allowance is paid under the AEC program the same shall belong to lessee and shall not be included in the net mill returns. Such development allowance shall be used and expended in the actual development of the leased claims. If it can be arranged with the ore purchasing agency, said royalty payments shall be paid to Ray Wareham, Ferron, Utah, for the lessors and if that can not be arranged then the lessees shall pay such royalty to Ray Wareham, Ferron, Utah, for the lessors. On any ore payments received by lessees during a calendar month royalties belonging to lessors shall be paid to lessors on or before the 10th day of the succeeding calendar month.

4. Lessee agrees to pay to lessors a minimum monthly payment of $600.00 and if the royalties above provided for do not yield such minimum sum then the lessee shall make up the difference. In this connection it is agreed that the annual period of this lease shall commence on the anniversary date of this agreement and if at any time during the twelve month period commencing on the anniversary date of this lease the lessee pays more than $600.00 in any month, any excess may be credited against the minimum guaranteed payment for any succeeding month. Said minimum monthly payment shall be due and payable on or before the 10th day of the succeeding calendar month. It is

specifically understood and agreed, however, that no minimum payment shall accrue until the month of March, 1955, and that the first minimum payment shall be due April 10, 1955.

5. Lessee agrees to enter upon said premises and work the said claims in a fashion and manner necessary to good and economical mining, so as to take out the greatest amount of ore possible with due regard to the development and preservation of the property as a workable mine and in particular the lessee agrees that it will not "hygrade" said property but will mine and develop the same systematically so that all of the economically mineable ore therein can be properly recovered and marketed. Lessee agrees to timber underground wherever and whenever necessary if good mining practices should so indicate. Lessee agrees to conduct its operations on the aforesaid claims in accordance with applicable state and federal mining laws and in keeping with the Atomic Energy Commission requirements if any are applicable thereto.

6. Lessee agrees to perform prior to May 15, 1955 and prior to May 15 of each succeeding year thereafter during the life of this agreement enough work to meet the annual assessment requirements on said unpatented claims. If requested to do so the lessee shall provide the lessors with full and adequate information to allow preparation of proper affidavits as to said annual work and labor and the lessee on request of lessors will cause one of its employees to execute any proper affidavit submitted to it for such purpose. The lessee nevertheless shall be responsible for the preparation and recording of such proofs of labor. Lessee further agrees to post the required notices on

the claims with respect to the performance of said assessment work.

7. Lessee shall take out, carry, and maintain full industrial insurance in accordance with the requirements of the State of Utah Industrial Commission act for any and all persons employed in or upon said premises by lessee and to conduct all operations so as to fully comply with the laws of the State of Utah relating to mining and safety, and will carry a blanket liability policy with limits of $100,000 to protect lessors and lessees against tort claims of third persons who may be injured while in or upon the leased premises.

8. Lessee agrees to post and keep posted during the life of this lease in at least three conspicuous places on the claims notices showing that the property is being operated by the lessee and that the interest of the lessors shall not be subject to liens for service or labor rendered or for materials or supplies furnished. Said notices shall be in substantially the following form:

"NOTICE TO ALL EMPLOYEES ON THIS PROPERTY
AND TO ALL OTHERS WHOM IT MAY CONCERN"

Notice is hereby given to all parties performing labor or furnishing skill, materials, machinery or other fixtures or supplies of any kind, in, to or on any mine or mill upon this property, or in, to or on said property or any part thereof, that the owners of said property are not and will not be responsible for any labor performed of any kind or skill, materials, machinery, fixtures or supplies of any kind furnished to or upon said property or any part thereof, nor shall the interest of said owners be subject to any liens for the same, and all persons are hereby notified that the property aforesaid is being operated by Haile Mines, Inc. and to whom all persons must look for payment.

HAILE MINES, INC.

9. Lessee agrees that it will not mix or co-mingle the ore extracted from the leased claims with the ore from any other

claims whatsoever.

10. If there are any claims or fractional claims contiguous to or lying in whole or in part within the outer boundaries of the claims hereby leased the same shall be located in the names of the lessors and shall become the property of the lessors, but the lessee shall have the right to mine and operate the same as a part of this lease. Lessee further agrees to occupy and hold all cross or parallel lodes, dips, spurs, feeders, crevices or mineral deposits of any kind which may be discovered in the working of this lease or in any tunnel running to intersect any of the leased claims, and the lessee shall have the privilege of working the same as appurtenances of the leased premises during the term of this lease.

11. Lessee shall furnish lessors or their agents or representatives or any of them full, true and accurate information either written or oral in response to any request with respect to the workings or the mineral or ore bodies within the demised premises or any part thereof and to permit the said lessors at any reasonable time on request to inspect any maps and surveys made by the lessee of the workings within the demised premises and by the request in writing of the lessors to furnish them with a duplicate or blue-print of such maps or surveys. The lessee agrees to keep full and complete records and accounts of the ores extracted from the leased premises as well as any and all monies received therefrom and said books, records and accounts shall be open to the inspection of the lessors or their agents at any reasonable time.

12. Lessors will cooperate with Lessee at all times during the term of this Lease to enable Lessee to obtain contracts with the United States or agencies thereof or any State or agency thereof, pursuant to programs or procedures, now existing or established in the future, of the United States government or agencies thereof or of any State or agency thereof, to explore and develop mineral deposits on the leasehold; and Lessors when requested by Lessee from time to time shall, as owner of the mining claims and property subject to this Lease, execute all contracts relating to such exploration and development work which may be required by the United States or agencies thereof or by any State or agency thereof or may be required to comply with any such governmental program or procedure.

13. Utilities. During the life of this Lease Lessee shall have the right to authorize any public or private utility company to erect and maintain electricity connections, gas lines, or water lines upon the leasehold and, if necessary or appropriate, Lessors will grant, and by executing this Lease do grant, to the utility company or companies the required easements and rights of way.

14. During the life of this lease Lessee will pay all taxes and assessments levied on the leasehold.

15. Impairment of Lessee's Rights. During the life of this Lease Lessors will not do or cause to be done any act or thing that might prejudice, impair or burden Lessee's rights hereunder,

16. Assignment. Provided lessee is not in default hereunder, Lessee shall have the right to sublet any portion of the

leasehold and the right to assign this Lease provided the assignee assumes the obligations of Lessee hereunder.

17. Removal of Property. At any time during the life of this Lease so long as lessee is not in default hereunder and within 90 days after its termination, however that may occur, provided lessee is not then in default, Lessee shall have the right to remove all or any of the property placed upon the leasehold by Lessee, including, without limiting the general, fixtures, equipment, building, structures, pipelines, stockpiles and other severable items regardless of how, when or where placed, affixed attached or imbedded, but excluding and excepting mine support shafts, head frames and timbers.

18. Unless either party is notified by the other party in writing to the contrary all notices to be served upon lessors shall be served upon Ray Wareham, Ferron, Utah, and notices to the lessee shall be served upon the lessee Haile Mines Inc. 500 - 5th Avenue, New York 36, New York.

19. Upon the failure of the lessee to do and perform any conditions or covenants herein agreed by it to be performed, the lessors may cancel this lease; however, the lessors shall, before cancelling said lease, notify the lessee in writing of the alleged breach and lessee shall have thirty days thereafter within which to cure the same and said lease cannot be cancelled by lessors if within thirty days after receipt of such notice the lessee has cured the breach.

20. The lessee may cancel this lease at any time by giving lessors thirty (30) days' written notice of its intention to cancel, provided, nevertheless, the lessee may not cancel this

lease in any twelve month term hereof without first performing sufficient work to satisfy the annual assessment requirements for said claims for the assessment year ending July 1 following the notice of calcellation by the lessee.

21. Any sum not paid when due by the lessee shall bear interest at the rate of eight per cent (8%) per annum and if the lessors employ an attorney to enforce any of the provisions of this agreement or to pursue any remedy on account of the breach thereof the lessee agrees to pay all court costs and a reasonable attorney's fee if the court finds the issues against the lessee in any such proceeding.

22. Heirs and Assigns. This Lease and Option shall be binding upon and inure to the benefit of the heirs, executors, administrators and assigns of Lessor and Lessee.

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

LESSORS:

Ray Warham

Mainvelle B. Warham

Erwin Olsen

Rhoda W. Olsen

LESSEE:

HAILE MINES, INC.

By H S West

Its President

ATTEST:

John M West

Asst. Secty.

STATE OF UTAH)
: ss.
COUNTY OF CARBON)

On the 18th day of August, 1954, before me, the undersigned, a Notary Public, personally appeared RAY WAREHAM and MARIBELLE B. WAREHAM, husband and wife, and ERVIN OLSEN known to me to be three of the persons whose names are subscribed to the within Lease as Lessors, and acknowledged that they executed the same freely and voluntarily.

G. M. Jensen
Notary Public
Commission expires: August 1958

STATE OF Utah)
: ss.
COUNTY OF Carbon)

On the 8th day of September, 1954, before me, the undersigned, a Notary Public, personally appeared Rhoda Olsen, wife of Ervin Olsen, one of the persons whose name is subscribed to the within Lease as Lessors, and acknowledged that she executed the same freely and voluntarily.

Ella Lundsen
Notary Public
Commission expires: June 15, 1957

STATE OF NEVADA)
: ss.
COUNTY OF CLARK)

On the 14th day of SEPTEMBER, 1954, before me, the undersigned, a Notary Public, personally appeared H. S. WEST, known to me to be the President, and JOHN M. WEST known to me to be the Assistant Secretary of Haile Mines, Inc. which executed the within Lease as Lessee, known to me to be the persons who executed the within Lease on behalf of such corporation, and acknowledged to me that such corporation executed the same and affixed its seal freely and voluntarily by authority of its board of directors and that the seal affixed thereto is the corporate seal of such corporation.

Joan D. Hays
Notary Public

Commission expires: May 19, 1958

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NELLIE B. YOUNG
RECORDER EMERY COUNTY
BY

455

OPTION

We, RAY WAREHAM and MARIBELLE B. WAREHAM, husband and wife, of Ferron, Utah, and EARNEST C. WAREHAM and JEANNE C. WAREHAM, husband and wife, of Ferron, Utah, acting by and through Ray Wareham, their agent and attorney in fact, and LYMAN P. BROWN and Catherine J. BROWN, husband and wife, of Kremmling, Colorado, hereby grant to Haile Mines, Inc., a corporation, an option to lease the mining claims described in the annexed unsigned lease and in accordance with the terms and provisions therein set forth. In order to exercise this option, optionee must notify Ray Wareham for optionors in writing at Ferron, Utah, on or before August 20th, 1954, at 6 p.m. and a lease on the form attached will then be executed by the parties within ten days thereafter. Optionees may enter upon the said mining claims for inspection sampling and prospecting at any time prior to the time said lease is executed, but they shall do no drilling during said interval. We acknowledge receipt of $10.00 for the option.

Dated as of August 6, 1954.

Ray Wareham
Ray Wareham

Maribelle B. Wareham
Maribelle B. Wareham, his wife

EARNEST C. WAREHAM
By Ray Wareham
Earnest C. Wareham
Ray Wareham, his agent and
Attorney in fact

JEANNE C. WAREHAM
By Ray Wareham
Ray Wareham, her agent and
Attorney in fact

Lyman P. Brown
Lyman P. Brown

Catherine J. Brown
Catherine J. Brown, his wife

MINERAL LEASE

This mineral lease made and entered into this 18 day of August, 1954, by and between RAY WAREHAM and MARIBELLE B. WAREHAM, husband and wife, of Ferron, Utah, and EARNEST C. WAREHAM and JEANNE C. WAREHAM, husband and wife, of Ferron, Utah, acting by and through Ray Wareham, their agent and attorney in fact, and LYMAN P. BROWN and Catherine J. BROWN, husband and wife, of Kremmling, Colorado, Lessors and Haile Mines Inc., a corporation of the State of Delware, with its principal place of business at 500 - 5th Avenue, New York 26, New York, Lessee;

WITNESSETH:

1. That for and in consideration of the rents and covenants to be paid and performed by lessee, lessors hereby lease to lessee and lessee leases from lessors the following identified unpatented lode mining claims situated in Emery County, State of Utah:

> Wills No. 1 to No. 9 inclusive, Jeannie No. 1 and Ajax No. 1 to No. 22 inclusive located May 7, 1954, the notices of location of which were recorded in the office of the County Recorder of Emery County, Utah, May 24, 1954 in Book J-21 at pages 567 to 598 inclusive, entry numbers 090467 to 090498 inclusive.

It is understood and agreed that if said claims are subject to leasing under Circular 7 of the Atomic Energy Commission program

that lease applications will be pursued by lessors with due diligence, and subleases will be executed to lessee.

2. Forthwith upon the execution of this lease, lessee agrees to pay to lessors the sum of $3400.00. This sum is paid and received as a special consideration for the execution of this lease and the same does not constitute the payment of any royalty.

3. Lessee shall pay to lessors a flat fifteen per cent royalty on all ore mined and sold from said premises based on the net mill returns. As used herein the term "net mill" returns means the total amount received from the ore purchasing agency for all ores marketed and shall also include any discovery and production bonuses paid under the AEC program. The cost of haulage of ore to the market shall be borne by the lessee and if any government haulage allowance is payable, such haulage allowance shall belong to the lessee and shall not be reckoned as a part of the net mill returns. If any development allowance is paid under the AEC program the same shall belong to lessee and shall not be included in the net mill returns. Such development allowance shall be used and expended in the actual development of the leased claims. If it can be arranged with the ore purchasing agency, said royalty payments shall be paid to Ray Wareham, Ferron, Utah, for the lessors and if that can not be arranged then the lessees shall pay such royalty to Ray Wareham, Ferron, Utah, for the lessors. On any ore payments received by lessees during a calendar month royalties belonging to lessors shall be paid to lessors on or before the 10th day of the succeeding calendar month.

4. Lessee agrees to pay to lessors a minimum monthly payment of $600.00 and if the royalties above provided for do not

yield such minimum sum then the lessee shall make up the difference. In this connection it is agreed that the annual period of this lease shall commence on the anniversary date of this agreement and if at any time during the twelve month period commencing on the anniversary date of this lease the lessee pays more than $600.00 in any month, any excess may be credited against the minimum guaranteed payment for any succeeding month. Said minimum monthly payment shall be due and payable on or before the 10th day of the succeeding calendar month. It is specifically understood and agreed, however, that no minimum payment shall accrue until the month of March, 1955, and that the first minimum payment shall be due April 10, 1955.

5. Lessee agrees to enter upon said premises and work the said claims in a fashion and manner necessary to good and economical mining, so as to take out the greatest amount of ore possible with due regard to the development and preservation of the property as a workable mine and in particular the lessee agrees that it will not "hygrade" said property but will mine and develop the same systematically so that all of the economically mineable ore therein can be properly recovered and marketed. Lessee agrees to timber underground wherever and whenever necessary if good mining practices should so indicate. Lessee agrees to conduct its operations on the aforesaid claims in accordance with applicable state and federal mining laws and in keeping with the Atomic Energy Commission requirements if any are applicable thereto.

6. Lessee agrees to perform prior to May 15, 1955 and prior to May 15 of each succeeding year thereafter during the life of this agreement enough work to meet the annual assessment

requirements on said unpatented claims. If requested to do so the lessee shall provide the lessors with full and adequate information to allow preparation of proper affidavits as to said annual work and labor and the lessee on request of lessors will cause one of its employees to execute any proper affidavit submitted to it for such purpose. The lessee nevertheless shall be responsible for the preparation and recording of such proofs of labor. Lessee further agrees to post the required notices on the claims with respect to the performance of said assessment work.

7. Lessee shall take out, carry, and maintain full industrial insurance in accordance with the requirements of the State of Utah Industrial Commission act for any and all persons employed in or upon said premises by lessee and to conduct all operations so as to fully comply with the laws of the State of Utah relating to mining and safety, and will carry a blanket liability policy with limits of $100,000 to protect lessors and lessees against tort claims of third persons who may be injured while in or upon the leased premises.

8. Lessee agrees to post and keep posted during the life of this lease in at least three conspicuous places on the claims notices showing that the property is being operated by the lessee and that the interest of the lessors shall not be subject to liens for service or labor rendered or for materials or supplies furnished. Said notices shall be in substantially the following form:

"NOTICE TO ALL EMPLOYEES ON THIS PROPERTY
AND TO ALL OTHERS WHOM IT MAY CONCERN"

Notice is hereby given to all parties performing labor or furnishing skill, materials, machinery or other fixtures or

supplies of any kind, in, to or on any mine or mill upon this property, or in, to or on said property or any part thereof, that the owners of said property are not and will not be responsible for any labor performed of any kind or skill, materials, machinery, fixtures or supplies of any kind furnished to or upon said property or any part thereof, nor shall the interest of said owners be subject to any liens for the same, and all persons are hereby notified that the property aforesaid is being operated by Haile Mines, Inc. and to whom all persons must look for payment.

HAILE MINES, INC.

9. Lessee agrees that it will not mix or co-mingle the ore extracted from the leased claims with the ore from any other claims whatsoever.

10. If there are any claims or fractional claims contiguous to or lying in whole or in part within the outer boundaries of the claims hereby leased the same shall be located in the names of the lessors and shall become the property of the lessors, but the lessee shall have the right to mine and operate the same as a part of this lease. Lessee further agrees to occupy and hold all cross or parallel lodes, dips, spurs, feeders, crevices or mineral deposits of any kind which may be discovered in the working of this lease or in any tunnel running to intersect any of the leased claims, and the lessee shall have the privilege of working the same as appurtenances of the leased premises during the term of this lease.

11. Lessee shall furnish lessors or their agents or representatives or any of them full, true and accurate information either written or oral in response to any request with respect to the workings or the mineral or ore bodies within the demised premises or any part thereof and to permit the said lessors at any reasonable time on request to inspect any maps and surveys made by the lessee of the workings within the demised premises and by the request in writing of the lessors to furnish them with

a duplicate or blue-print of such maps or surveys. The lessee agrees to keep full and complete records and accounts of the ores extracted from the leased premises as well as any and all monies received therefrom and said books, records and accounts shall be open to the inspection of the lessors or their agents at any reasonable time.

12. Lessors will cooperate with Lessee at all times during the term of this Lease to enable Lessee to obtain contracts with the United States or agencies thereof or any State or agency thereof, pursuant to programs or procedures, now existing or established in the future, of the United States government or agencies thereof or of any State or agency thereof, to explore and develop mineral deposits on the leasehold; and Lessors when requested by Lessee from time to time shall, as owner of the mining claims and property subject to this lease execute all contracts relating to such exploration and development work which may be required by the United States or agencies thereof or by any State or agency thereof or may be required to comply with any such governmental program or procedure.

13. Utilities. During the life of this Lease Lessee shall have the right to authorize any public or private utility company to erect and maintain electricity connections, gas lines, or water lines upon the leasehold and, if necessary or appropriate, Lessors will grant, and by executing this Lease do grant, to the utility company or companies the required easements and rights of way.

14. During the life of this lease Lessee will pay all taxes and assessments levied on the leasehold.

15. Impairment of Lessee's Rights. During the life of this Lease Lessors will not do or cause to be done any act or thing that might prejudice, impair or burden Lessee's rights hereunder,

16. Assignment. Provided lessee is not in default hereunder, Lessee shall have the right to sublet any portion of the leasehold and the right to assign this Lease provided the assignee assumes the obligations of Lessee hereunder.

17. Removal of Property. At any time during the life of this lease so long as lessee is not in default hereunder and within 90 days after its termination, however that may occur, provided lessee is not then in default, Lessee shall have the right to remove all or any of the property placed upon the leasehold by Lessee, including, without limiting the general, fixtures, equipment, building, structures, pipelines, stockpiles and other severable items regardless of how, when or where placed, affixed attached or imbedded, but excluding and excepting mine support shafts, head frames and timbers.

18. Unless either party is notified by the other party in writing to the contrary all notices to be served upon lessors shall be served upon Ray Wareham, Ferron, Utah, and notices to the lessee shall be served upon the lessee Haile Mines Inc. 500 - 5th Avenue, New York 36, New York.

19. Upon the failure of the lessee to do and perform any conditions or covenants herein agreed by it to be performed, the lessors may cancel this lease; however, the lessors shall, before cancelling said lease, notify the lessee in writing of the alleged breach and lessee shall have thirty days thereafter

within which to cure the same and said lease cannot be cancelled by lessors if within thirty days after receipt of such notice the lessee has cured the breach.

20. The lessee may cancel this lease at any time by giving lessors thirty (30) days' written notice of its intention to cancel, provided, nevertheless, the lessee may not cancel this lease in any twelve month term hereof without first performing sufficient work to satisfy the annual assessment requirements for said claims for the assessment year ending July 1 following the notice of calcellation by the lessee.

21. Any sum not paid when due by the lessee shall bear interest at the rate of eight per cent (8%) per annum and if the lessors employ an attorney to enforce any of the provisions of this agreement or to pursue any remedy on account of the breach thereof the lessee agrees to pay all court costs and a reasonable attorney's fee if the court finds the issues against the lessee in any such proceeding.

22. Heirs and Assigns. This Lease and Option shall be binding upon and inure to the benefit of the heirs, executors, administrators and assigns of Lessor and Lessee.

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

LESSORS:

✓ Ray Warham

Marielle B. Warham

✓ Earnest C. Warham by Ray Warham

✓ Jeanne C. Warham by Ray Warham

-9-

Lyman P. Brown

Catherine J. Brown

LESSEE:

HAILE MINES, INC.

By H S West

Its President

STATE OF Utah)
: ss. H.S. West - Secretary
COUNTY OF Carbon)

On the 18 day of August, 1954, before me, the undersigned, a Notary Public, personally appeared RAY WAREHAM and MARIBELLE B. WAREHAM, husband and wife, Ray Wareham as agent and attorney in fact for EARNEST C. WAREHAM and JEANNE C. WAREHAM, husband and wife, and LYMAN P. BROWN ~~and Catherine J. BROWN, husband and wife,~~ of Kremmling, Colorado, known to me to be the person or persons whose name is or names are subscribed to the within Lease ~~and Option~~ as Lessors, and acknowledged that he or they executed the same freely and voluntarily.

S. N. Jensen
Notary Public

Commission expires Aug 4 1958

STATE OF New York)
: ss.
COUNTY OF New York)

On the 1st day of November, 1954, before me, the undersigned, a Notary Public, personally appeared H.S. West, known to me to be the President ~~President~~, and H.S. West, Jr known to me to be the Secretary ~~Secretary~~ of Haile Mines, Inc. which executed the within Lease as Lessee, known to me to be the persons who executed the within Lease on behalf of such corporation, and

acknowledged to me that such corporation executed the same and affixed its seal freely and voluntarily by authority of its board of directors and that the seal affixed thereto is the corporate seal of such corporation.

Gloria A. Figola (Clerk)
Notary Public

Commission expires;

STATE OF COLORADO)
COUNTY OF Routt) : ss.

On the 8th day of October, 1954, before me, the undersigned, a Notary Public, personally appeared CATHERINE J. BROWN, wife of LYMAN P. BROWN of Kremmling, Colorado, known to me to be the person or persons whose name is subscribed to the within Lease as Lessors, and acknowledged that she executed the same freely and voluntarily.

Robert W. Gleason
Notary Public

Commission expires: 2/15/58

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

RECEIVED
AUG - 1 1955

224 New Customhouse
Denver 2, Colorado

July 26, 1955

Memorandum

To: Chairman of the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA assistance (Uranium), Pacific Uranium Mines Company, Green River claims, Emery County, Utah

Enclosed are two copies of the subject application. Phase I and Phase II of this application in the amount of $67,740.00 appears logical, but the Phase III of shaft sinking and drifting at $72,000.00 is not exploration.

One copy of this application is being forwarded to the Grand Junction Survey office and one copy is being retained in our files.

W. M. Traver

Enclosures

W. M. Traver

D M E A L O A N A P P L I C A T I O N R E P O R T

G R E E N R I V E R C L A I M S

E M E R Y C O U N T Y , U T A H

July, 1955

Robert L. Redmond
PACIFIC URANIUM MINES COMPANY
Los Angeles, California

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Date Rec'd. JUL 25 1955

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

RECEIVED
AUG - 1 1955
BUREAU OF MINES
Denver, Colorado

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. 3928
Metal or Mineral Uranium
Date Received 8-1-55
Estimated Cost $67,740
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:

PACIFIC URANIUM MINES COMPANY
122½ South Vermont Avenue
Los Angeles 4, California

(*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

(See report)

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

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

Owner - See report

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it none

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

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

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

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 30 days and be completed within 5 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

[x] Money [x] Use of equipment owned by you [x] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated July 15, 1955

PACIFIC URANIUM MINES COMPANY
(Applicant)

By John P. Kellogg

John P. Kellogg

Vice-President and General Manager

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

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in envelope pocket

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REPORT ON GREEN RIVER CLAIMS

EMERY COUNTY, UTAH

INTRODUCTION AND OWNERSHIP

This report concerns 40 full claims, and 14 fractions located in T. 21 S., R. 14 E., in sections 22, 26, 27, 34, and 35 on the Green River Desert west of the town of Greenriver, Utah. These claims are recorded as follows:

Claim Name	Location Date	Book -- Page	Locator
Willis #1-9 incl.	6/7/54	J-1 567-598	R. Wareham
Jeannie #1	6/7/54	J-1 567-598	E. C. Wareham
Ajax #1-22 incl.	6/7/54	J-1 567-598	L. P. Brown
Red #1-5 incl.	6/26/54	J-29 180-185	E. Olsen

Notices of lease application were posted on the above claims July 24, 1954, and recorded July 26, 1954; entry numbers 94908 to 94913, inclusive. The following claims were not filed under circular 7:

Claim Name	Book	Page
Ajax 23-25 incl.	J-54	111-113 incl.
Ajax fractions 1 - 8 incl.	J-70	33 - 36 incl.
Ajax fractions 9, 13, 14, 21,	J-70	67 - 69 incl.
Willis fractions 6, 9.	J-71	240-246 incl.

On December 10, 1954, filing to comply with Public Law 585, the following claims were recorded with the county recorder, Emery County, Utah:

Ajax 1-22 incl.
Willis 1-9 incl.
Jeannie 1

These claims are recorded in Book J-70, pages 37-66 inclusive, and pages 70-76 inclusive.

All the above claims were owned jointly by R. Wareham, E. C. Wareham, L. P. Brown, and E. Olsen of Ferron, Utah. The claims are contiguous. A lease was made by the above men to Haile Mines, Inc. who in turn sold their

lease to Pacific Uranium Mines Company, the present applicant of this report.

Haile Mines initiated the first exploration drilling program of 17 holes, and then granted an option to buy to Pacific Uranium Mines who in turn furthered the preliminary exploration program with 18 additional holes to check Haile Mines' results. Pacific's drilling program blocked-out a continuous ore-body of 6000 tons of approximately 0.30% U_3O_8 and indicated several areas of favorability. (See Figures 4 and 6.)

LOCATION AND ACCESSIBILITY

The property is easily accessible by all-weather roads. The property is located approximately 18 miles west and slightly south of Greenriver, Utah, on the eastern flank of the San Rafael Uplift. It is reached by U. S. Highway 6-50 traveling west of the town of Greenriver 12 miles, then left on the unimproved Cotton Wood Wash Road for 6 miles. This road is marked by Uranium Prospectors, Ltd. signs which lead to their exploration shaft. Pacific Uranium Mines' property is 260 feet south of this shaft. (See Figures 1, 2, and 3.)

There is an airstrip on Uranium Prospector's, Ltd. property suitable for very light planes. A regular airstrip is maintained at the town of Greenriver, Utah; the nearest town for all supplies. The nearest uranium ore buying station is 22 miles from the property located on U. S. Highway 6-50 on the east side of the Green River. Railroad, post office, telegraph, etc. are all to be found at the town of Greenriver.

PHYSIOGRAPHY, TOPOGRAPHY, AND CLIMATE

The country is arid semi-desert with gentle relief. Water for drilling purposes can be obtained from the San Rafael River which flows southward along the eastern flank of the San Rafael Swell approximately 1 ½ miles from the property. Drinking water must be hauled from the town of Greenriver, Utah. There is no timber available on or near the property for mining purposes. Vegetation in the area consists of sage brush, cactus, and a few cottonwood trees found in some of the dry wash beds. Great extremes of temperatures are recorded for the area. Summer temperatures have been recorded of 115° F., and winter temperatures of -35° F. Time lost due to weather however, is probably only 3 or 4 weeks out of the year. This loss would be due to muddy road conditions in the early spring, and to cold weather freezing up water supplies for drilling purposes.

GEOLOGY, GENERAL

Regional Structure

The property is located on the northeastern flank of the San Rafael Swell. The San Rafael Swell uplift has greatly influenced the area by uplifting the sediments and tilting them from 5 to 85 degrees. The faults and fractures tend to occur at approximately right angles to the long axis of the uplift. The sedimentary beds normally have a strike of N. 15° E. and on the property the dip ranges from 10° to 3° with the dip flattening eastward away from the uplift area.

Stratigraphy (See Table 1, Page 8.)

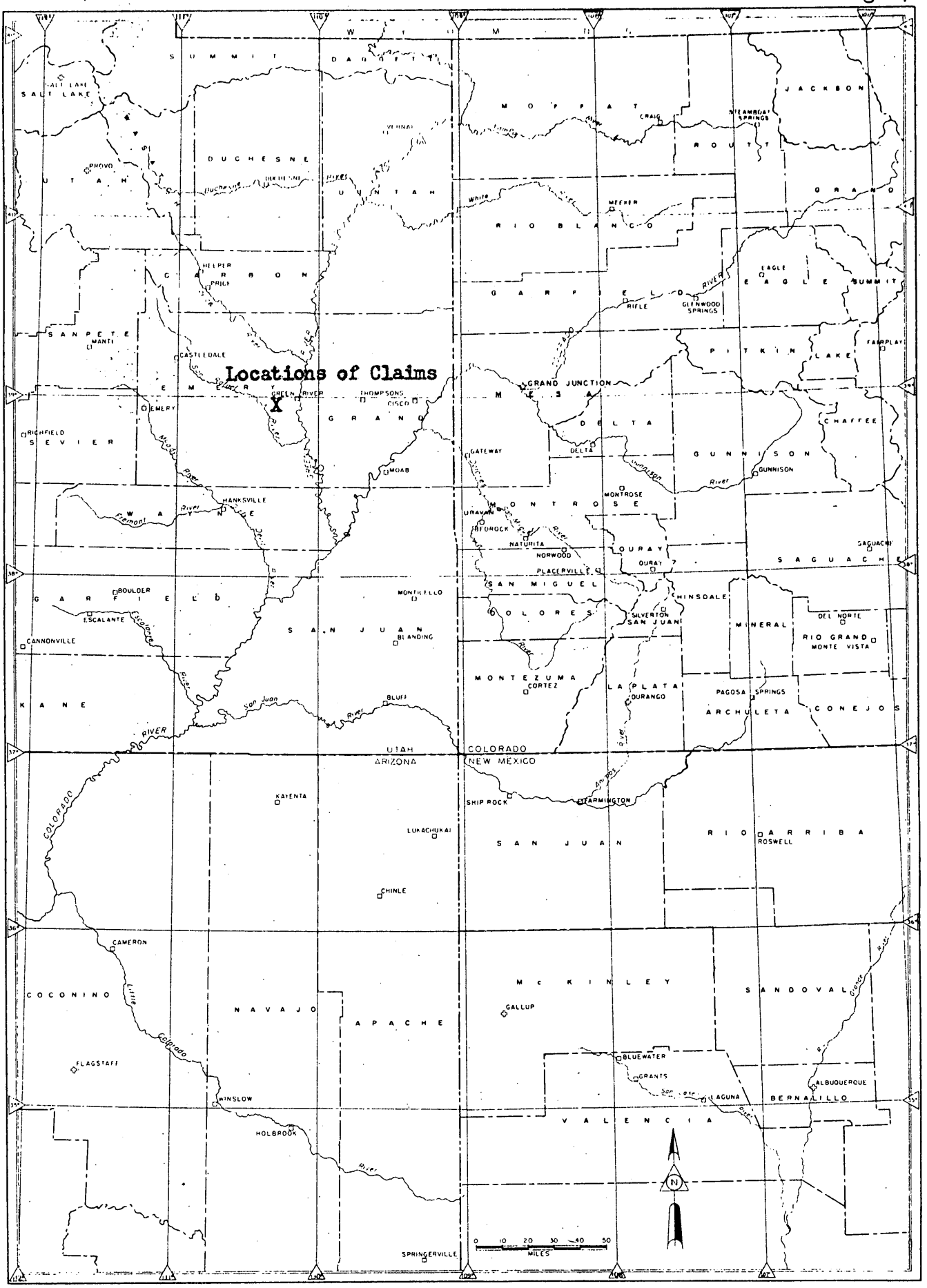

Figure 1 Colorado Plateau Location Map

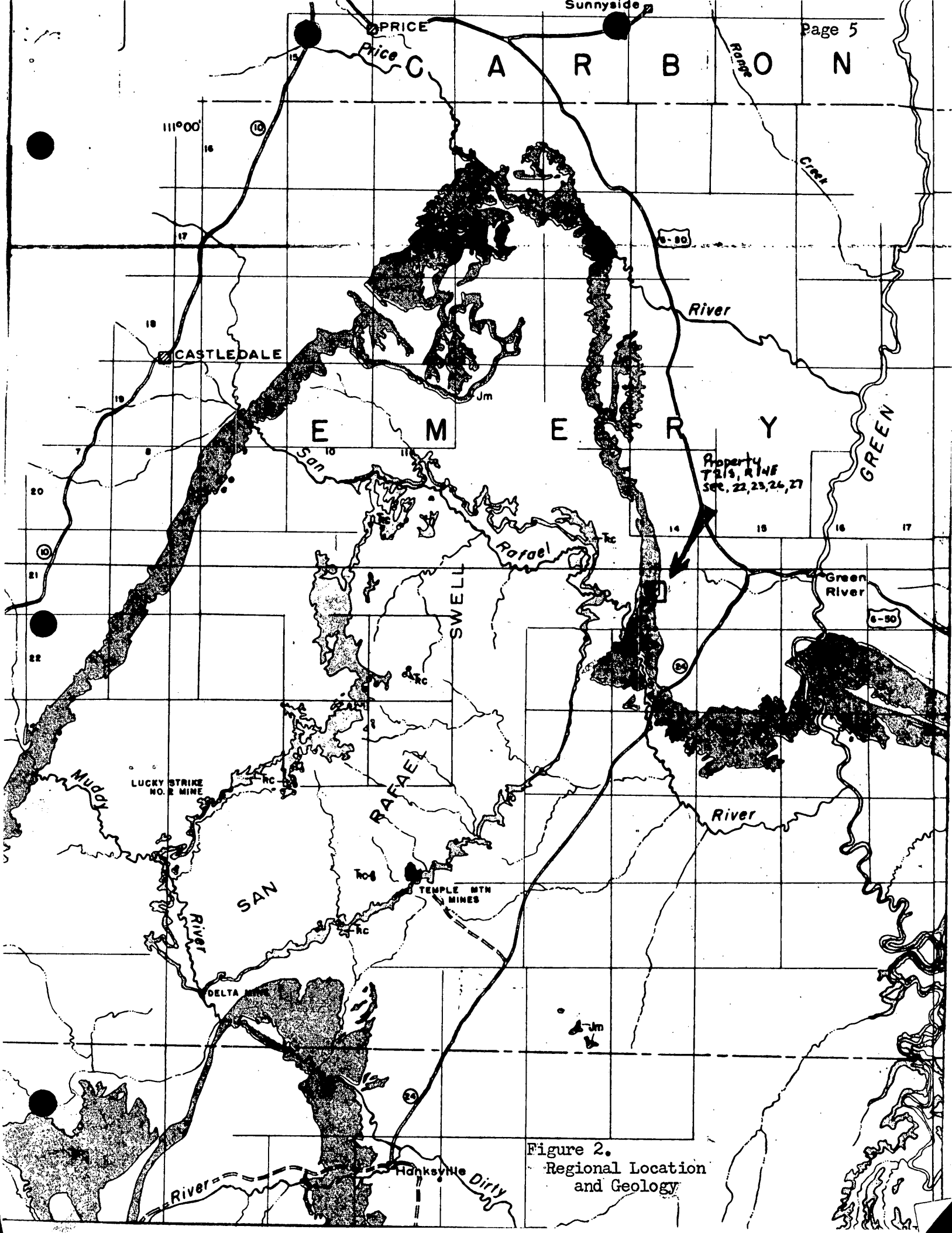

Figure 2.
Regional Location
and Geology

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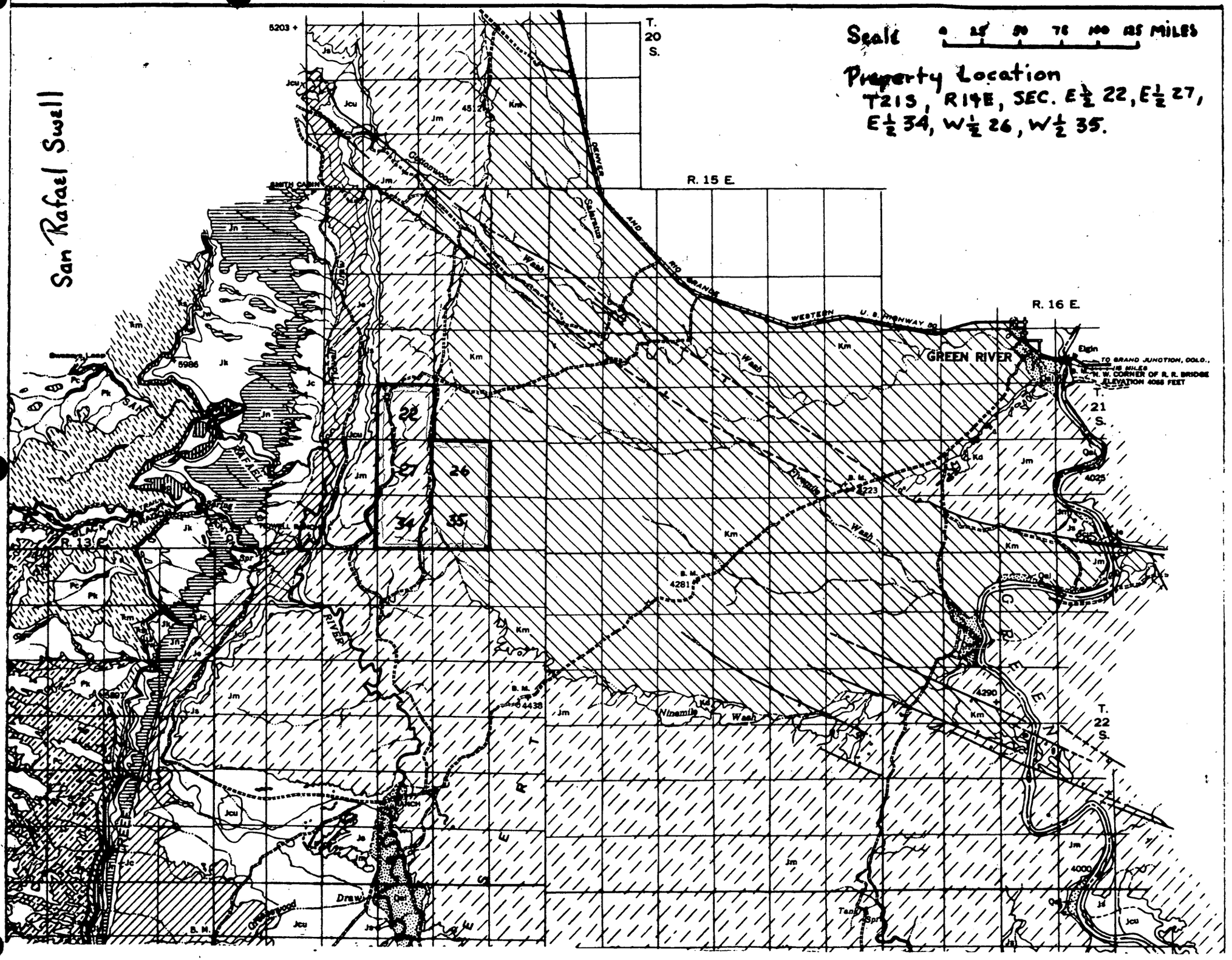
San Rafael Swell
Scale 0 25 50 75 100 125 MILES
Property Location
T21S, R14E, SEC. E½ 22, E½ 27, E½ 34, W½ 26, W½ 35.
T. 20 S.
R. 15 E.
R. 16 E.
R. 13 E.
T. 21 S.
T. 22 S.
GREEN RIVER
Elgin
TO GRAND JUNCTION, COLO., 18 MILES
N. W. CORNER OF R. R. BRIDGE ELEVATION 4068 FEET
WESTERN U. S. HIGHWAY 50
DENVER AND RIO GRANDE
Salaratus Wash
Ninemile Wash
Greenwood Draw
SMITH CABIN
SAN RAFAEL
BLACK DRAGON
Tenmile Spr
22
27
26
34
35

RECEIVED
AUG - 1 1955

Figure 3.

Township Map: General Geology

GEOLOGY OF THE PROPERTY

Local Structure

The area is typical of that found associated with structural uplift. The formations are tilted from approximately 40° on the immediate uplift flanks to 3° or 4° away from the uplift. Erosion has taken place primarily along the strike of the beds forming a topographic expression of troughs and ridges paralleling the axis of the uplift. Erosion along the strike of the beds has formed Cuesta-type topography.

There is one fault along the northern part of the property with a strike of approximately N. 75° W. Fracturing attendant to this faulted area has effected a horizontal area of about 100 yards. The beds are displaced between five and fifteen feet vertically.

Lithology and Ore Horizon

The major uranium control for this general area appears to be a combination of structure and localized features of fluvial deposition. The ore horizon is located in the upper one-third of the Saltwash member of the Morrison Formation in a coarse sandstone conglomeratic bed which carries abundant asphaltic-type material. The favorable lithology for ore is the same as that found in any Morrison ore-producing area. In a favorable area there is a permeable host bed of sandstone conglomerate with green mudstone galls and splits within the unit as well as asphaltic and carbonaceous material which in some instances have been replaced by iron sulphide. Above and below the host beds are associated bleached or altered to green-gray mudstone beds.

The Atomic Energy Commission has outlined a favorable area for the

GENERAL GEOLOGY — Stratigraphic Column

System	Formation	Thickness	Description
Cretaceous	Mancos	0 to 1200'	Carbonaceous Shales and Silts
Transitional from Cretaceous to Jurassic	Cedar Mountain	0 to 100'	Black & light gray shales
	Buckhorn Conglomerate	0 to 40'	Conglomerate
Jurassic (Upper)	Morrison		
	Brushy Basin Member	300' to 400'	Interbedded red, brown, gray, green shales, some very lenticular sandstone lenses,
	Saltwash Member	225'	Massive cross-bedded sandstones, conglomerates, silts, and shales. Ore horizon located in upper part of member in a coarse sandstone and conglomerate bed associated with very abundant asphaltic type material.
	Summerville	40'	Red silt and shales, abundant Gypsum.
	Entrada	350'	Massive, light buff-colored, well-sorted cross-bedded sandstone.

occurrence of uranium based on the above factors, within which the property is located.

PRODUCTION AND RESERVES

Adjacent Properties

The Four Corners Uranium Company's holdings located due west of the property have in operation 6 inclines to ore. Their estimated reserve is believed to be approximately 50,000 tons. These operations are in continuous production and it is estimated that they are shipping 300 tons per month.

The claims due north of the property are owned and currently being explored by United Prospectors, Ltd. Their estimated reserve is thought to be 30,000 tons. At present they are sinking a shaft 280 feet north of our property which should be completed about the first of October, at which time they will start production. There are no other operations on their property.

Reserves on Property

Figures 4 and 5 indicate drilled areas and the plat of the blocked-out ore-body in the northern part of the claims. The calculations for the ore-body tonnages are to be found on pages 11 and 12 of this report.

PLANS FOR EXPLORATION UNDER DMEA

General Disscussion; Previous Exploration

Thirty six holes have been drilled on the property. The first 17 holes were drilled at random. Numbers 2, 6, 7, 9, and 16 encountered above-average grade ore. Numbers 3, 5, 8, 10, 11, 12, and 15 indicated slight gamma-ray

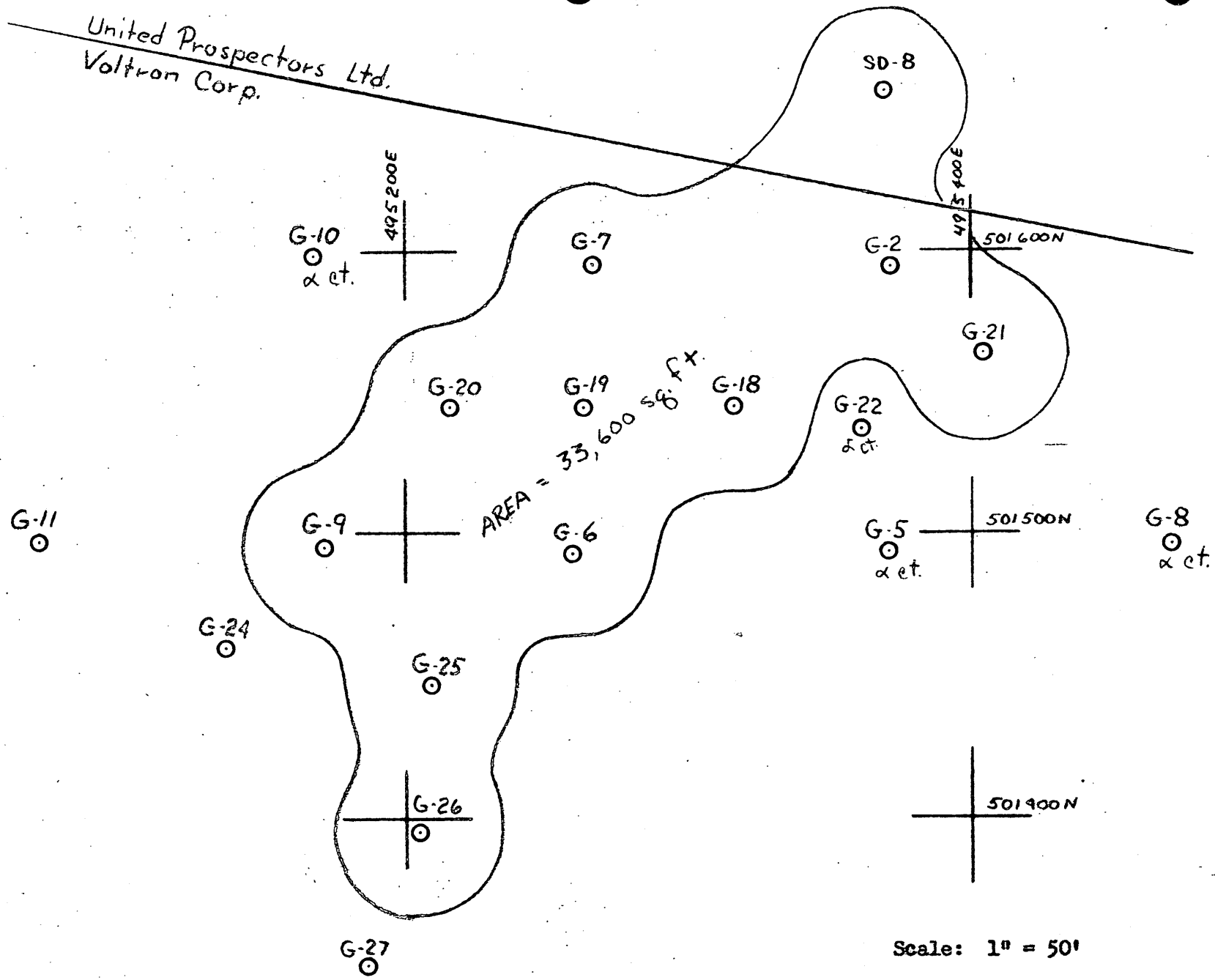

Figure 5. General Plan of Blocked-out Ore.

TABLE 2 ORE RESERVE CALCULATION SHEET RADIOMETRIC

HOLE NO.	SAMPLE NO.	INTERVAL	THICKNESS	CHEMICAL ASSAY U_3O_8	CHEMICAL ASSAY V_2O_5	FOOT % U_3O_8	FOOT % V_2O_5	AREA	VOLUME	TONS	TOTAL $/TON	RESERVE DOLLARS
G-2		261-265	4.0	1.00		4.000						
										PROVEN VALUE		$244,338.00
G-6		239.7-240.2	0.5	0.19		.090						
		240.2-240.7	0.5	0.28		.140				INFERRED VALUE		292,416.60
		240.7-241.2	0.5	0.18		.090						
G-7		238.4-239.0	0.6	0.53		.318						
		239.0-239.5	0.5	0.43		.215						
		239.5-240.2	0.7	0.43		.301						
G-9		233.9-234.4	0.5	0.11		.055						
		234.4-234.9	0.5	0.11		.055						
		234.9-235.4	0.5	0.002		.001						
		235.4-235.9	0.5	0.17		.085						
		235.9-236.6	0.7	0.37		.259				PROVEN		
								33.600	84.672	6,048		
G-18		243.0-243.3	0.3	0.43		.129						
		243.3-247.0	3.7	0.40		1.480				INFERRED		
										7,560		
G-19		233.5-233.8	0.3	0.02		.006						
		233.8-234.4	0.6	0.43		.192				Bonus Ore		
		234.4-234.7	0.3	0.02		.006				1282		78,650.70
										Non Bonus		165,687.30
G-20		237.5-238.3	0.8	0.10		.080				4866		244,338.00
		238.3-239-0	0.7	0.13		.091						
		239.0-239.8	0.8	0.15		.120				Bonus		
								Inferred		1282		78,650.70
G-21		269.4270-.1	0.7	0.54		.378				Non Bonus		
		270.1-271.5	1.4	0.50		.700				6278		213,765.90
												292,416.60
G-25		238.5-239.3	0.8	0.08		.064						
		239.3-240.0	0.7	0.21		.147						
		240.0-241.0	1.0	0.38		.380						
G-26		240.0-240.9	0.9	0.18		.162						
		240.9-241.1	0.2	0.26		.052						
		241.1242.1	1.0	0.02		.020						
		242.1-243.1	1.0	0.18		.180						
		Av. Thickness	2.52		Av. Grade	0.39 %						

Bonus 61.35
Non Bonus 34.05
7.80 lbs/ton

TABLE 2-A ORE RESERVE CALCULATION SHEET CHEMICAL

HOLE NO.	SAMPLE NO.	INTERVAL	THICKNESS	CHEMICAL ASSAY U_3O_8	CHEMICAL ASSAY V_2O_5	FOOT % U_3O_8	FOOT % V_2O_5	AREA	VOLUME	TONS	TOTAL $/TON	RESERVE DOLLARS
G-2		261-265	4.0	Rad 0.28		1.120						
										PROVEN VALUE		$ 160,496.00
G-6		239.7-240.2	0.5	0.19		.095						
		240.2-240.7	0.5	0.28		.140				INFERRED VALUE		191,870.00
		240.7-241.2	0.5	0.18		.090						
										PROVEN		
G-7		238.4-239.0	0.6	0.53		.318		33,600	84,672	6,048		
		239.0-239.5	0.5	0.43		.215				INFERRED		
		239.5-240.2	0.7	0.43		.301				7,560		
G-9		233.9-234.4	0.5	0.11		.055						
		234.4-234.9	0.5	0.11		.055				Bonus		
		234.9-235.4	0.5	0.002		.001		PROVEN		2,000		76,500.000
		235.4-235.9	0.5	0.17		.085				Non Bonus		
		235.9-236.6	0.7	0.37		.259				4,048		83,996.00
												160,496.00
G-18		243.0-243.3	0.3	0.43		.129						
Core Loss		243.3-247.0	3.7	Rad 0.28		1.036						
G-19		233.5-233.8	0.3	0.02		.006				Bonus		76,500.00
		233.8-234.4	0.6	0.32		.192				2,000		
		234.4-234.7	0.3	0.02		.006		INFERRED		Non Bonus		115,370.00
										5,560		191,870.00
G-20		237.5-238.3	0.8	0.10		.080						
		238.3-239.0	0.7	0.13		.091						
		239.0-239.8	0.8	0.15		.120						
G-21		269.4-270.1	0.7	0.54		.378						
		270.1-271.5	1.4	Rad 0.28		.392						
G-25		238.5-239.3	0.8	0.08		.064						
		239.3-240.0	0.7	0.21		.147						
		240.0-241.0	1.0	0.38		.380						
G-26		240.0-240.9	0.9	0.18		.162						
		240.9-241.1	0.2	0.26		.052						
		241.1-242.1	1.0	0.02		.020						
		242.1-243.1	1.0	0.18		.180						
		Weighted Average :	2.5	0.25		6.169						

Bonus 38.25
Non Bonus 20.75
5.00 lbs/ton

count. Holes numbered 1, 4, 13, 13, and 17 were barren but indicated favorable lithology. (See Figure 6 in Map Flap)

The next 19 holes were put in to offset ore and mineralization located by Haile Mines' drilling. Numbers 18, 19, 20, 21, 25, and 26 cut ore and, combined with 2, 6, 7, and 9, indicated a proven ore reserve of 6000 tons of 0.29% U_3O_8 in the northwestern part of the property. Numbers 22, 23, 24, and 27 in the same area carried indications of mineralization. Drilling was then moved to the west central part of the claims to a point 50 feet from an estimated 19,000 ton ore-body on Four Corners' property. Holes numbered 28, 29, 30, and 31 were placed here in an attempt to pick up any possible mineralization that might be associated with the large ore-body located near by. These holes indicated an area of only semi-favorability. Holes 32, 33, 34, 35, and 36 were placed approximately 2000 feet northward around hole #3 which had indicated gamma-ray count. These five holes gave chemical assays from trace U_3O_8 to 0.07% U_3O_8, however, gamma-ray probing by the A. E. C. logging truck indicated values in excess of 0.20% U_3O_8. This problem has been discussed with A. E. C. geologists who have informed us that up to this time their gamma-ray results have been quite close to chemical assays throughout the area. There is a possibility that our chemical assays may have been erroneous, or that core loss occurred within the ore horizon. It is felt that further drilling in the hole #3 area will prove up a commerical grade deposit.

Estimated Probable Reserves

The first ore-body blocked-out gave an inferred dollar value of $292,416.60 for 6000 tons of ore. Hole #16 due east of this ore-body cut 1 foot 8 inches of ore assaying an excess of 1.0% U_3O_8. It is felt that offset drilling in this area may develop another average size ore-body of between 3000 and 6000 tons.

Lithologic and gamma-ray work in the hole #3 area indicates the nearness of another ore-body.

Approximately 20% of the holes drilled by the Atomic Energy Commission for their initial reconnaissance exploration program in this general area cut either ore or mineralization. It is felt that the initial phase drilling as outlined in this report should bring in at least 6 new ore finds on the property. An estimated ore potential of 50,000 tons of ore has been made for the property based on results of drilling to date and lithologic studies of favorability.

First Phase Drilling

Plans for further drilling have been set up to follow two main phases with secondary stages to each phase.

The first phase is to drill out the shallower ground on 400 foot centers. This would necessitate 13,880 feet of core and non-core drilling. A secondary stage supporting the first phase drilling would be 11,400 feet of core and non-core drilling to delimit areas of favorability indicated by the initial 400 foot centered holes. This gives a total of 25,200 drill feet for the first major phase work.

Figure #6 illustrates the proposed locations of Phase I drilling.

Second Phase Drilling and Alternate Program

The second phase is to drill out the deeper ground (400 to 500' depths) on 400 foot centers in the those areas adjacent to ground indicated as favorable in the shallower drilling. Approximately 12,000 feet of core and non-core drilling would be needed for this phase. An alternative to this deep ground drilling would be to sink an exploration shaft in the most favorable area indicated by the first phase drilling, and to drift to indicated ore holes with some exploratory

cross-cuts from the main drifts.

Figure #6 illustrates the proposed locations of Phase II drilling.

Tabulation of Costs; Explanation (See Table 3.)

Supervisory and miscellaneous costs, including bulldozer work, under Phase I is an estimate that would be halved under the initial 13,800' drilling, or $1,500.00 for 2 months. Added to the drilling cost, this would total $24,960 for the initial exploration.

Drilling prices are based on past drilling contracted for on the same ground.

Prices on the alternate program of development shaft and drifting are based on similar work done on adjacent properties.

TABLE 3 - TABULATION OF COSTS

Phase I

Initial Drilling:	Core	1,380'	@ $ 3.50 per ft. =	$ 4,830.00	
	Non-core	12,420'	@ 1.50 per ft. =	18,630.00	
	Total	13,800'			$ 23,460.00
Secondary Drilling:	Core	1,140'	@ $ 3.50 per ft. =	3,990.00	
	Non-core	10,260'	@ 1.50 per ft. =	15,390.00	
	Total	11,400'			$ 19,380.00

Supervisory Costs, Miscellaneous Supplies, Assays, Etc.:
$750.00 per month for 4 months = $ 3,000.00

Total Phase I Costs $ 45,840.00

Phase II

Drilling:	Core	1,200'	@ $ 3.50 per ft. =	$ 4,200.00	
	Non-core	10,800'	@ 1.50 per ft. =	16,200.00	
	Total	12,000'			$ 20,400.00

Supervisory Costs, Miscellaneous Supplies, Assays, Etc.:
$750.00 per month for 2 months = $ 1,500.00

Total Phase II Costs $ 21,900.00

Total Costs Phase I and II $ 67,740.00

Program suggested to follow successful completion of Phases I and II drilling, or as an alternate program to Phase II drilling:

Shaft	325' depth @ $120.00 per ft. =	$ 39,000	(Estimated contract price)
Drifting	2,000' depth @ 15.00 per ft.	30,000	(Estimated contract price)
		$ 69,000.00	

Supervision Costs, Miscellaneous Supplies, Assays, Etc.:
$750.00 per month for 4 months = 3,000.00

Total Costs of Alternate Plan $ 72,000.00

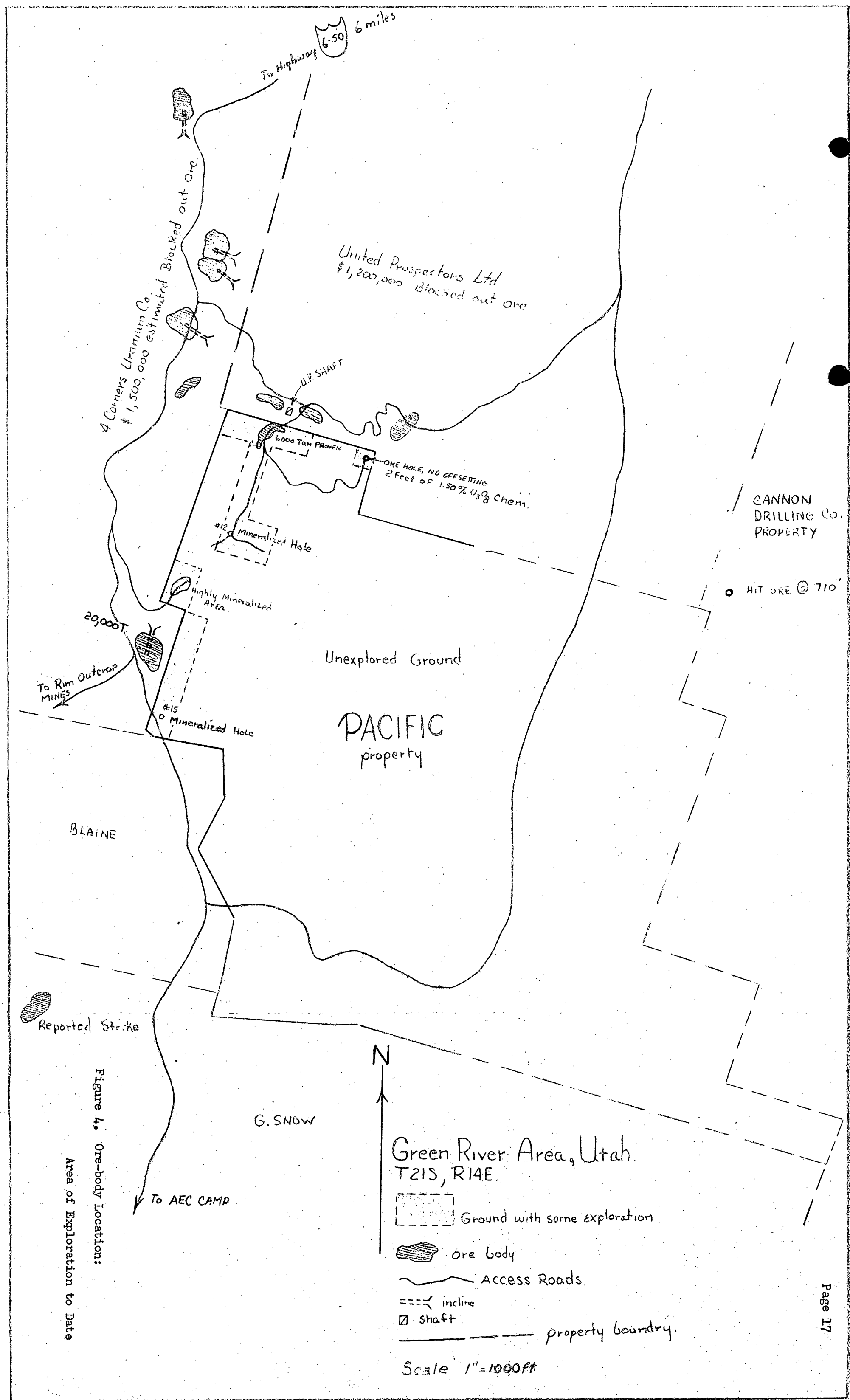

Figure 4. Ore-body Location:

Area of Exploration to Date

JY 29
1955

Mr. Jay L. Chambers, Chief
Contract Administration and Audit Division
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Docket copy

Murphy
Knowlt

Project Summary Report

By: F. M. Murphy March 25, 1959

1. Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926

Operator - Pacific Uranium Mines Company
Suite 210, 292 S. LaCienega Blvd.
Beverly Hills, California
Mr. Bernard M. Silbert, President

Operator's PropertyRights -

Lessee of the unpatented lode mining claims and fractions: Ajax No. s1-25 inclusive; Wills Nos. 1-9, inclusive; Red Nos. 1-5, inclusive; Jeannie No. 1; Ajax Fractions Nos. 1-9, inclusive; and 13, 14, and 21; Wills Fractions Nos. 6 and 9, situate in secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S.L.B.M., Emery County, Utah.

Consent to Lien signers:

Ray Wareham and Maribelle B. Wareham; Ervin Olsen and Rhoda W. Olsen; Ray Wareham, Attorney-in-Fact for Earnest C. Wareham and Jeanne C.Wareham; Lyman P. Brown and Catherine Brown, all adresses Ferron, Utah.

2. Contract, dated March 9, 1956 -

Amendments (effective dates) -

No. 1, June 1, 1956, omits drilling certain holes and approves revised locations of other holes.

No. 2, June 1, 1956, provides bulldozing roads and drill sites in all stages of contract. Amendment includes revised estimate of work and costs, reduces original cost of $73,840.00 to $73,306.00.

No. 3, November 30, 1956, modifies Stage III work and extends completion date from December 1, 1956, to March 1, 1957.

No. 4, August 30, 1956, authorizes recess period from August 30, 1956 to September 30, 1957; extends completion date to December 9, 1957; and extends royalty pay-back period to 11 years.

2. Contract (continued) -

Amendments (continued -

No. 5, September 30, 1957, authorizes recess period from September 30, 1957 to March 30, 1958; extends completion date to September 30, 1958; and extends royalty pay-back period to 12 years. Also provides for automatic termination if work is not started by March 30, 1958

Termination -

Contract terminated effective August 30, 1956, by Acting Director OME in letter dated December 5, 1958.

3. Certification of discovery issued May 8, 1957.

4. Work under the contract started on April 10, 1956, and continued until August 30, 1956. All 31 Stage I holes and 15 Stage II holes were completed. On November 25, 1956, the Field Team authorized 25 Stage III holes, but work was never started by the Operator.

5. Work Authorized, as amended -

Stage I	- Non-core and core drilling	31 holes
Stage II	- " " " " "	50 "
Stage III	- " " " " "	40 holes.

Stage I and Stage II holes were spaced on 18 lines 400 feet apart north and south with the holes 200 feet apart east and west on each line. Stage III holes to be drilled as offsets at 100 feet.

Estimated Costs - (3 Stages - 121 holes)

Bulldozing, 161 hours @ $11.00/hr.	$1,771.00
Non-core drilling, 31,000 feet @ $1.50/ft.	46,500.00
Core drilling, 5,680 feet @ $3.50/ft.	19,880.00
Incidental allowance, 36,680 feet @ $0.125/ft.	4,585.00
Chemical analyses U_3O_8 and V_2O_5, 114 samples @ $5.00 each	570.00
Total Estimated Cost	$73,306.00
Government Participation @ 75%(rounded)	$54,980.00

Work Completed (Accepted Costs) -

Bulldozing 45.5 hours @ $10.44 (Aug.)/hr.	$ 475.00
Non-core drilling, 10,855 fteet, @ $1.50/ft.	16,282.50
Core drilling, 3,304.5/feet @ $3.50/ft.	11,565.75
Incidental allowance, 14,159.5 feet @ $0.125/ft.	1,769.93
Chemical analyses, 23 @ $5.00/sample	115.00
Total Accepted Costs	$30,208.18

6. Audit Report of Review, dated March 19, 1959 -

Total cost as billed by Operator	$30,473.19
Exceptions	265.01 1/
Total Accepted Costs	$30,208.18
Government Participation @ 75%	$22,656.14

1/ Excess footage claimed that did not check with drill hole logs.

7. Final Reports -

Field examiners' received February 24, 1959.
Operator's, received March 16, 1959. Though lacking geologic information, the report is considered adequate and acceptable. The OME examiner's report covers the area geology.
Field Team's Final Summary Report, received

8. Excerpts from Joint Final and Engineering Report, dated February 1959, by J. W. Hasler, USGS, and H. F. Robertson, USBM:

The property lies on the east flank of the San Rafael Swell. The potential ore-bearing Jurassic-Salt Wash member of Morrison formation crops out one-half to three-quarter mile west of the property and dips 3° to 6° east. The top of the Salt Wash ranges from slightly more than 100 feet beneath the surface at the west edge of the property to more than 600 feet in the eastern part. The project drilling was confined to the eastern part of the property. Here, the holes drilled to penetrate the potential ore-bearing upper sandstone unit of the Salt Wash ranged from 215 feet to 463 feet in depth.

The project covered an area east and south of known ore bodies, individually as large as 40,000 tons and aggregating 200,000 tons of indicated ore.

Of the 46 holes drilled, 7 penetrated ore-grade material and 8 were mineralized. This represents a discovery of 1,369 tons of indicated and inferred ore averaging 0.59% U_3O_8 and having a gross value of $74,224.50. The above estimates are based on results of isolated widely spaced holes in the northwest portion of the project area. Consequently, the possible size of inferred ore bodies was not determined. The ore bodies included in the reserves are small and relatively thin, averaging about 200 tons each. Drilling the holes authorized under Stage III might have shown the occurrence of significant uranium ore bodies.

9. Comments -

The contract work during the active period was efficiently performed and supervised by the Operator.

The Union Carbide Corporation, by an Option Agreement, dated March 11, 1958, assumed control of the property and informed the DMEA Field Team, in a letter dated March 27, 1958, that the project was resumed. In a letter, dated March 31, 1958, Union Carbide Corporation and the Operator were advised of DMEA requirements before the contract could be assigned. This letter was not answered.

The writer agrees with the Field Team examiners that additional exploration work on the property has a good possibility of showing that significant ore reserves occur on the property.

Prior to the DMEA contract, Haile Mines and Pacific both had completed a limited amount of exploratory drilling on the property. As a result of this drilling, Pacific's calculations of estimated ore reserves were given as 6,000 tons containing approximately 0.38% U_3O_8.

F. M. Murphy

F. M. Murphy

Form 17
59

OFFICE OF MINERALS EXPLORATION

WORK COMPLETED ANALYSIS

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

Operator: Pacific Uranium Mines Company — Actual Cost ✓

State: Utah — Agreed Unit Cost

Final Report of Audit — Commodity: Uranium — Docket No. DMEA-3928

Final Report of Review: x — Contract No. Idm-E926

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 feet	Cost 1/	Units feet	Cost 1/	
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Non-core	31,000	50,168.00	10,885'	17,462.46	17,462.46
Drilling (Specify) Core	5,680	20,797.00	3,304.5'	12,153.72	12,153.72
Surface Excavation					
Underground Excavation					
Roads and Trails - Bulldozing		1,771.00		475.00	475.00
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Analyses U_3O_8 and V_2O_5 @ $5.00/sample		570.00		115.00	115.00
Totals		$73,306.00		$30,208.18	2/ $30,208.18

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

Prepared by J M Murphy Date 4/10/59

52616

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code

June 17, 1968

Memorandum

To: The File

From: Chief, Office of Minerals Exploration

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Under date of March 9, 1956, the Government entered into the subject contract to explore the Green River Claims at an estimated cost of $73,840.00, of which the Government's participation was $55,380.00, reduced by Amendment No. 2, dated June 25, 1956, to $73,306.00 and $54,980.00, respectively. As a result of the exploration, a certification of discovery was issued on May 8, 1957. The Government paid the Operator $22,656.14 for its share of the cost of the exploration completed under the contract.

Royalty on production from the property through February 1964 in the amount of $13,977.85 has been paid to the Government according to the last Royalty Review Report, dated April 27, 1964. Since that date, royalty payments totalling $368.32 on production during March, April, and May 1964, have been received, bringing the total royalty payments received to $14,346.17.

The period for repayment of the Government's contribution to exploration costs under this contract expired March 9, 1968. Under the circumstances, it is recommended that the file be closed on this case and the unpaid balance of the Government's contribution be written off.

Frank E. Johnson

Frank E. Johnson

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

FEJohnson/gla 6-17-68

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Show to whom, date, and address where delivered ☐ Deliver ONLY to addressee

(*Additional charges required for these services*)

RECEIPT

Received the numbered article described below.

REGISTERED NO.

CERTIFIED NO.

133421

INSURED NO.

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

1

Myers Roy Wardlaw

2

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

DATE DELIVERED

3

APR 26 1968

SHOW WHERE DELIVERED (*only if requested*)

c55—16—71548-10 GPO

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

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

POSTMASTER: IF UNCLAIMED AFTER 5 DAYS RETURN TO SENDER

DELIVERED
APR 26 1968
UTAH

INSTRUCTIONS: Show name and address below and complete instructions on other side, where applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article *RETURN RECEIPT REQUESTED.*

RETURN TO

NAME OF SENDER U. S. Geological Survey
Office of Minerals Exploration

STREET AND NO. OR P.O. BOX
Dept. of Interior Building

POST OFFICE, STATE, AND ZIP CODE
Washington, D. C. 20242

POD Form 3811 Apr. 1967 c55—16—71548-10

3928 Pacific Uranium

MME Forms 63 sent to Mr. and Mrs. Ray Wareham, Ferron, Utah 84523

Form not returned.

(MME Form 63 to Four Corners Oil & Minerals Company, same date, also not returned.)

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

U. S. Geological Survey
Denver Federal Center--Building 53 -- Room 203
Denver, Colorado 80225

OFFICIAL
COPY
O. M. E.
RECEIVED
MAR 22 1968
INITIALS | CODE
gla | 130
JEJ | 110
gla | 130
| 220

March 21, 1968

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Idm-E-926

Transmitted herewith are two copies of a reply dated March 18, 1968 to my inquiry of March 7, 1968 concerning possible production from the designated Green River claims from May, 1967 to date on the above-stated subject.

James L. Gualtieri
for J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

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

IN REPLY REFER TO: MD:MCS

March 18, 1968

OME Region III
RECEIVED
MAR 19 1968
Denver, Colorado

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

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Idm-E-926

Dear Mr. Hasler:

This is in reply to your letter of March 7, 1968 inquiring about production from the designated Green River claims from May, 1967 to date.

We have no record of any production from May 1, 1967 to the present from any of the following claims named in your letter:

Ajax Nos. 1 to 25, inclusive
Wills Nos. 1 to 9, "
Ajax Fractions Nos. 1 to 9, inclusive, 13,14, & 21
Wills Fractions Nos. 6 to 9, "
Red Nos. 1 to 5, inclusive
Jeannie No. 1
All in Secs. 22, 26, 27, 34, & 35, T. 21 S., R. 14 E., SLM

The last production of record came from the Red claims in the fourth quarter of 1966.

Very truly yours,

Don R. Hill, Director
Mining Division

Office of Minerals Exploration
Building 53 Room 203

March 7, 1968

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

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Idm-E-926

Dear Don:

The royalty period for the subject contract expires on March 9, 1968. Would you please inform us of any production from the Green River Claim covered in the contract May 1967 to date. The claims covered in the contract are as follows: Ajax Nos. 1 - 22 inclusive, Wills Nos. 1 - 9 inclusive, Jeannie No. 1, Ajax Nos. 23 - 25 inclusive, Ajax Fraction No. 1, Ajax Fractions Nos. 2 - 5 inclusive, Ajax Fractions Nos. 6 - 8 inclusive, Ajax Fractions Nos. 9, 13, 14 and 21, Wills Fractions Nos. 6 - 9, Red Nos. 1 - 5 inclusive.

The above described claims are situated in secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S. L. B. M., Emery County, Utah.

Sincerely yours,

J. William Hasler

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

cc: Chief, OME (2)
OME chron
Mr. Hasler
DMEA-3928

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/4/68		110
		220

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

The royalty period for the subject contract expires on March 9, 1968. Please check with the AEC for information on possible production from the claims covered by the contract from May 1967 to date, and advise.

FRANK E. JOHNSON

Frank E. Johnson

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

GLAult/a 3-4-68

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

May 26, 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E-926

Reference is made to your memorandum of February 24, 1967 and our letter of May 9, 1967 concerning production to date since May 1964 on the above-mentioned subject. Transmitted herewith is a copy of the reply from Mr. Don R. Hill, Director, Mining Division, AEC, Grand Junction, Colorado.

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

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

IN REPLY REFER TO: MP:ASJT

OME Region III
RECEIVED
MAY 24 1967
Denver, Colorado

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

Subject: DMEA-3298 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E-926

Dear Bill:

I have your letter of May 9, 1967, subject as above, asking that we check our records as to production since May 4, 1964 from the Ajax, Jeannie, Willis, and Red claims as listed in your letter.

We have checked the production records pertaining to these claims and find that no shipments are listed from these specific claims since May, 1964. Under the operator's method of reporting, the production from the Red Nos. 1-5 is shown as coming from the unit referred to as Incline 9, Mine 9, or Mine 9 South. This unit includes also the Vanura Nos. 3 and 7. Although this is not the best arrangement for your office, this method is considered to be in compliance with the existing ore marketing authorization approved by the Atomic Energy Commission.

An inspection of the mine map of the property and a review of our field engineers' reports indicates that no ore has been shipped from any of the claims listed in your letter since May 4, 1964.

Very truly yours,

Don R. Hill

Don R. Hill, Director
Mining Division

Office of Minerals Exploration

May 9, 1967

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

Subject: DMEA - ~~3298~~ 3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E-926

Dear Don:

In a letter dated June 15, 1966 to John Patterson, Chief of the Ore Reserve Branch, I requested that he check on any production since May, 1964 from the following claims under the subject contract:

Ajax Nos. 1 - 25 inclusive
Ajax fractions, Nos. 1 - 9 inclusive
Ajax fractions, Nos. 13, 14 and 21
Wills, Nos. 1 - 9 inclusive
Wills fractions, Nos. 6 - 9 inclusive
Jeannie No. 1
Red Nos. 1 - 5 inclusive

The last sale of ore reported was in May, 1964. In a reply dated June 26th, 1966 Mr. Patterson reported that your record showed no shipments of uranium ore from the above property since January 1, 1960.

However, our records show that the last sales of ore were reported in May, 1964. This ore was shipped by Four Corners Oil and Minerals Company to Vitro Chemical Company. Royalties have been paid to the Government on the shipments from the Red No. 5 claim by the Four Corners Oil and Minerals Co. to Vitro Chemical Company from January, 1962 through May, 1964. We have no information on production since the latter date. Would you please check your records again as to the production to date since May 4, 1964 on the listed claims?

Sincerely yours,

J. William Hasler

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

cc: Chief, OME (2)
Hasler chron
OME chron
E-926

OFFICIAL FILE COPY

Date	Surname	Code
2/24		110
		220

FEB 24 1967

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Reference is made to our memorandum of May 24, 1966, and your reply of June 22 transmitting the report of AEC recording no shipments of uranium ore from the subject property since January 1, 1960.

As we advised in our memorandum of May 24, the last sales of ore were reported in May 1964. Royalties have been paid to the Government on shipments from the Red No. 5 claim by the Four Corners Oil and Minerals Company to Vitro Chemical Company from January 1962 through May 1964. We have no information on production since the latter date. Perhaps there is some misunderstanding as to the specific claims listed in our memorandum to account for the difference in the production reports.

Please check again with AEC as to production to date since May 1964 on the claims listed.

FRANK E. JOHNSON

Frank E. Johnson

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
130
120-M

FEJohnson/bph 2/24/67

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
U. S. Geological Survey - Denver Federal Center
Building 25 - Room 2284
Denver, Colorado 80225

June 22, 1966

OFFICIAL
COPY
O. M. E.
RECEIVED
JUN 24 1966
INITIALS | CODE
6/24 M | 120
RJ | 110
HK | 120
AMA | 120
220

Memorandum

To: Chief, OME

From : Field Officer, Region III

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E 926

Enclosed is a copy of a letter from the Atomic Energy Commission showing their records show that no shipments of uranium ore have been made from the subject property since January of 1960.

Enclosure

J. William Hyden

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

June 21, 1966

IN REPLY REFER TO:

POR: DEE

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

Dear Bill:

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E 926

Our records show no shipments of uranium ore from the above property since January 1, 1960.

Very truly yours,

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

Form 7
(3)

OFFICIAL FILE COPY

Date	Surname	Code
		110
5/24/66	Kirkham	120
		220

MAY 24 1966

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: MMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-H926

Please check with the AEC on production since May 1964 from the following claims under the subject contract:

Ajax Nos. 1 - 25, inclusive
Ajax Fractions Nos. 1 - 9, inclusive
Ajax Fractions Nos. 13, 14, and 21
Wills Nos. 1 - 9, inclusive
Wills Fractions Nos. 6 - 9, inclusive
Jeannie No. 1
Red Nos. 1 - 5, inclusive

The last sales of ore reported was in May 1964. This ore was shipped by Four Corners Oil and Minerals Company to Vitro Chemical Company, Salt Lake City.

FRANK E. JOHNSON

Frank E. Johnson

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
130
120M
FEJohnson/bih 5/24/66

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
		110
5/24/66	Kirkemo	120
		220

Four Corners Oil and Minerals Company
613 Farmers Union Building
Denver, Colorado 80203

Re: EMKA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Gentlemen:

Reference is made to our letter of March 11, 1966, concerning production from the property under the subject contract to which we have not received a reply.

Please advise at your earliest convenience whether or not there has been any production from the property since you last reported production during the month of May 1964.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region III
120M
FEJohnson/bih 5/24/66

23263

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

March 11, 1966

Mr. and Mrs. Ray Wareham

Ferron, Utah

OFFICIAL COPY
O. M. F.
ENCLOSED
AND
INITIAL
4/5 M 1/20 M
4/5/66 HK

Re: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Dear Mr. and Mrs. Wareham:

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

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

Sincerely yours,

Frank E. Johnson

Frank E. Johnson
Chief, Office of
Minerals Exploration

Check with Jim Connors on Red claims on contracts?

63 Sent Jim Connors 3/11/66 - No reply yet. MMM 4/5/66

MME Form 63
Revised 7-65

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since May 1961, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☑

   Has the assessment work on all of the unpatented mining claims been kept up to date? If not, please give details. Yes ☐ No ☑

   The Red claims were sold to Four Corners Oil & Minerals Co. The Gap & Gap fraction claims were leased to Four Corners Oil and Minerals and they were to perform assessment work.

2. Since May 1961, has there been any production from the land subject to the contract? On the Red Claims Yes ☑ No ☐

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

	Quantity	Value

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

Type	Quantity		Estimated Grade	Location
Ore		Tons		
Concentrates		Tons		
Other		Tons		

3. Since through workings (see of contract)? Yes ☐ No ☐

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

Disposition of Material	Quantity	Value

Submitted by:

Name Roy Farnham Title Owner & Lessee Gap claims

Address Ferron, Utah Date 3-28-66

Since I do not have the records on the production from the red claims it can best be obtained from Four Corners Oil and Minerals Co.
There has been no production on the Gap claims.

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

GEOLOGICAL SURVEY

REGISTERED MAIL
RETURN RECEIPT REQUESTED

MAR 1 1 1963

Mr. and Mrs. Ray Wareham

Ferron, Utah

Re: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Dear Mr. and Mrs. Wareham:

On February 17, 1956, you among others executed a Consent to Lien in connection with the subject contract which covered claims Ajax Nos. 1 to 25 inclusive, Ajax Fractions Nos. 1 to 9 inclusive, Ajax Fractions Nos. 13, 14, and 21, Wills Nos. 1 to 9 inclusive, Wills Fractions Nos. 6 and 9, Jeannie No. 1, and Red Nos. 1 to 5 inclusive.

On May 2, 1961, the Red claims, among others, were quitclaimed to Four Corners Oil and Minerals Company. Will you please complete the enclosed MME Form 63 and return two of the copies to us.

Sincerely yours,

Frank E. Johnson

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

Sorry I can not be of more assistance in this matter but the Red Claims were sold out right and the Ajax & Ajax fraction Claims leased at the same time.

Four Corners Oil and Minerals Co. was to assume repayment of the remainder of the DMEA Loan that was not repaid by Pacific Uranium Mines Co.

3928

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☐ Show address where delivered

(Additional charges required for these services)

RECEIPT

Received the numbered article described on other side.

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

Tom Corners

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

Paul A. Gordon

DATE DELIVERED

3/18/66

SHOW WHERE DELIVERED *(only if requested)*

C55—16—71548-5—F GPO

3928

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

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

DENVER, COLO. 82
PM
18 MAR
1966

POSTMARK OF DELIVERING OFFICE

INSTRUCTIONS: Fill in items below and complete instructions on other side, if applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article RETURN RECEIPT REQUESTED.

RETURN TO

REGISTERED NO. 500718	NAME OF SENDER Office of Minerals Exploration
CERTIFIED NO.	STREET AND NO. OR P. O. BOX U. S. Geological Su Dept. of the Interior
INSURED NO.	CITY, STATE, AND ZIP CODE Washington, D. C. 20242

POD Form 3811 Sep. 1963

3928

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☒ Show address where delivered

(Additional charges required for these services)

RECEIPT

Received the numbered article described on other side.

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

Mr. & Mrs. Ray Warehouse

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

Fernon Utah

DATE DELIVERED	SHOW WHERE DELIVERED *(only if requested)*
MAR 19 1966	

C55—16—71548-5—F GPO

PRIVATE USE TO A
PAYMENT OF POSTAGE, $30

POSTMARK OF
DELIVERING OFFICE
MAR
19
1966
UTAH

INSTRUCTIONS: Fill in items below and complete instructions on other side, if applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article RETURN RECEIPT REQUESTED.

RETURN TO

REGISTERED NO. 500719	NAME OF SENDER U. S. Geological Survey, Office of
CERTIFIED NO.	STREET AND NO. OR P. O. BOX Minerals Exploratio Department of the Interior
INSURED NO.	CITY, STATE, AND ZIP CODE Washington, D. C. 20242

POD Form 3811 Sep. 1963

DMEA 3928

ME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	Selfridge	220
		220

REGISTERED MAIL
RETURN RECEIPT REQUESTED

MAR 11 1966

Mr. and Mrs. Ray Wareham

Ferron, Utah

Re: DMRA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-2926

Dear Mr. and Mrs. Wareham:

On February 17, 1956, you among others executed a Consent to Lien in connection with the subject contract which covered claims Ajax Nos. 1 to 25 inclusive, Ajax Fractions Nos. 1 to 9 inclusive, Ajax Fractions Nos. 13, 14, and 21, Wills Nos. 1 to 9 inclusive, Wills Fractions Nos. 6 and 9, Jeannie No. 1, and Red Nos. 1 to 5 inclusive.

On May 2, 1961, the Red claims, among others, were quitclaimed to Four Corners Oil and Minerals Company. Will you please complete the enclosed MME Form 63 and return two of the copies to us.

Sincerely yours,

(Signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Region III
Mr. Selfridge

GCSelfridge/mm (3/10/66)

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	GCS	120
5/20	Johnson	110
		100
		220

MAY 20 1965

Mr. and Mrs. Ray Wareham

Ferron, Utah

Re: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Dear Mr. and Mrs. Wareham:

On February 17, 1956, you among others executed a Consent to Lien in connection with the subject contract which covered claims Ajax Nos. 1 to 25 inclusive, Ajax Fractions Nos. 1 to 9 inclusive, Ajax Fractions Nos. 13, 14, and 21, Wills Nos. 1 to 9 inclusive, Wills Fractions Nos. 6 and 9, Jeannie No. 1, and Red Nos. 1 to 5 inclusive.

On May 2, 1961, the Red claims were quitclaimed to Four Corners Oil and Minerals Company. Will you please inform us of the status of all of the other claims.

Sincerely yours,

George C. Selfridge (gla)

George C. Selfridge, Chief
Division of Exploration Operations

Enclosure

GCSelfridge/mm (5/20/65)
cc: Director's Reading File
Region III
Docket
Mr. Selfridge
120M

23263

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

January 19, 1965

Memorandum

To: George C. Selfridge, Chief
Division of Exploration Operations
Washington, D. C. 20240

From: Acting Field Officer, OME, Region III

Subject: DMEA-3767 (Uranium)
Uranium Prospectors Company, Ltd.
Jack Rabbit Claims
Emery County, Utah
Contract Idm-E877
and
DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926
and
DMEA-3620 (Uranium)
Uranium Prospectors Company, Ltd.
Dede, et al., Claims
Emery County, Utah
Contract Idm-E792

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 22 1965

INITIALS	CODE

This responds to your memorandum dated December 24, 1964 on the subject contracts.

I have reviewed the information furnished by Mr. Roy O. Davis as noted in the copy of the letter which is attached. I have also visited the AEC and E. E. Lewis, in Grand Junction.

I have every assurance that we will receive all royalties due the Government except in the case of Contract Idm-E792. Please refer to my memorandum of January 18, 1965 regarding Idm-E792.

You may be interested in the background of E. E. Lewis, Inc. This outfit consists of a group of young (by our standards) mining engineers and geologists who have all had a great deal of experience in uranium mining and exploration. They usually operate as production managers, as they do on E-1092 Vanadium Queen for Climax who is the Operator for the Bankruptcy Court.

The E. E. Lewis agreement with Four Corners is more of a lease and sublease.

As far as I have been able to learn, E. E. Lewis, Inc. is thoroughly reliable and has a good reputation.

Original signed by

Hugh M. Connors

cc: E877
E926
E792
Chron

MME Form 7
(2/63)

DMEA-3928

OFFICIAL FILE COPY

Date	Surname	Code
12/23		800
	[illegible]	130
12/23	[illegible]	110
	[illegible]	100
		220

Memorandum

DEC 8 4 1964

To: Acting Field Officer, Region III

From: Chief, Division of Exploration Operations

Subject: DMEA-3767 (Uranium)
Uranium Prospectors Company, Ltd.
Jack Rabbit Claims
Emery County, Utah
Contract Idm-E877
and
DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926
and
DMEA-3620 (Uranium)
Uranium Prospectors Company, Ltd.
Dede, et al., Claims
Emery County, Utah
Contract Idm-E792

In response to MME Form 63, Request for Information on Certified Project, regarding the first above listed contract, Mr. Roy O. Davis, Controller, Four Corners Oil & Minerals Co., 613 Farmers Union Building, Denver, Colorado, has furnished a copy of Lease and Mining Claim dated March 25, 1964, relating to Jack Rabbit No. 1 claim leased from C. H. Snow, et al. Also furnished was a copy, undated but apparently executed in April or May 1964, of a Mining Lease, Sublease and Agreement with E. E. Lewis, Inc., P. O. Box 1481, Grand Junction, Colorado, relating to the Jack Rabbit No. 1 and numerous other mining claims.

We are unable to reproduce these documents. It is suggested that you either procure copies from Mr. Davis or borrow his copies long enough to make copies for your file.

Our review indicates that in addition to the Jack Rabbit No. 1 claim on which the Government has a lien for royalty under Contract Idm-E877, the Ajax group, Jeannie No. 1, Red Nos. 1 to 5, and the

23263

Wills group are subordinated under Contract Idm-E926. The Vanura group appear to be the relocated claims formerly described as the Dede, et al., group subordinated under Contract Idm-E792.

Mr. Davis stated that there has not been any production from the land subject to the contract since April 1964. However, it is not clear whether he is referring only to the Jack Rabbit No. 1 claim or whether he means all of the claims.

Please look into this matter at your earliest convenience and advise what the prospects are for receipts of royalty under each of the contracts. You should also ascertain whether any of the other claims listed in Exhibit "A" of the mining lease to E. E. Lewis, Inc., are subject to the Government's lien for royalty.

Enclosure (Form 63 - DMEA-3767)

George C. Selfridge

CEFisher/ama 12-23-64

cc:
Docket - DMEA-3928
Director's Reading File
CA & A Division
Review Committee

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

OFFICIAL FILE COPY
May 5, 1964
RECEIVED MAY 8 1964

DATE	INITIALS	CODE
5/11	Murphy	500
		220

Pacific Uranium Mines Company
292 South LaCienega Boulevard
Beverly Hills, California

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Gentlemen:

Enclosed is a copy of a Report of Review dated April 27, 1964, on the subject contract.

Yours very truly,

ORIGINAL SIGNED BY

Hugh M. Connors
Acting Field Officer, OME
Region III

Enc.

cc: G. C. Selfridge (2)
E926
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20 - Denver Federal Center
Denver, Colorado 80225

May 5, 1964

Four Corners Oil and Minerals Co.
1575 Sherman Street
Denver, Colorado

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Gentlemen:

Enclosed is a copy of a Report of Review dated April 27, 1964, on the subject contract.

Yours very truly,

ORIGINAL SIGNED BY

Hugh M. Connors
Acting Field Officer, OME
Region III

Enc.

cc: G. C. Selfridge (2)
E926
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

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

May 5, 1964

Memorandum

To: Fiscal Section, Office of Management Operations
Office of the Secretary
Department of the Interior
Washington, D. C. 20240

From: Acting Field Officer, OME, Region III

Subject: IMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract IEM-E926

Enclosed is the original of a Report of Review dated April 27, 1964, on the subject contract.

ORIGINAL SIGNED BY

Hugh M. Connors

Enc.

cc: G. C. Selfridge (2)
E926
Chron

E Form 7
10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/28	[illegible]	800
		220

APR 29 1964

Memorandum

To: Acting Field Officer, Region III

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

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

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

(a) Original to the Fiscal Section, Office of Management Operations, Office of the Secretary, U. S. Department of the Interior, Washington, D. C. 20240;
(b) One copy for Pacific Uranium Mines Company;
(c) One copy for Four Corners Oil and Minerals Co.; and
(d) One copy for your files.

As evidence of your concurrence, a copy of your letter transmitting copies of the report to Pacific Uranium Mines Company and Four Corners Oil and Minerals Company should be furnished to this Division. If for any reason you do not concur, the original and all copies of the report should be returned to this Division with your comments.

Enclosures

CEFisher/ama 4-28-64

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

43683

Building 20 - Federal Center
Denver 25, Colorado

OFFICIAL FILE COPY
O. M. E
RECEIVED MAR 12 1964

March 10, 1964

Mr. Doniul M. Hillis
Four Corners Oil & Minerals Co.
Farmers Union Building
1575 Sherman Street
Denver, Colorado

Re: DMEA-3767 (Uranium) and DMEA-3926 (Uranium)
Contract Idm-E877 Contract Idm-E926
Uranium Prospectors Co., Ltd. Pacific Uranium Mines Co.
(Jack Rabbit No. 1 claim) Green River Claims
Emery County, Utah Emery County, Utah

Dear Mr. Hillis:

I have been advised that Mr. Clarence E. Fisher will visit your office on or about Friday, April 3, 1964 to make a royalty audit of the captioned accounts.

Any courtesies shown Mr. Fisher will be greatly appreciated.

Sincerely yours,

ORIGINAL SIGNED BY

Hugh M. Connors
Acting Field Officer, OME
Region III

HMC:ca

cc: Chief, Division of Field Operations, OME
E. D. Talbert, Chief
Contract Administration and Audit Division
Clarence E. Fisher
Royalty Corres. E877
Royalty Corres. E926
Chron

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

OFFICIAL FILE COPY
O. M. E
RECEIVED JUL 5 1963

DATE	INITIALS	CODE
	7/5	800
7/8		500
		220

Memorandum

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

From: Acting Field Officer, OME, Region III

Subject: DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
(Green River Claims)
Emery County, Utah

On June 26, 1963 I visited the Red claims presently under lease to the Four Corners Oil and Minerals Company. The Red claims are being worked through the Four Corners shaft and Mr. Hovis estimates that there is enough ore remaining on the Red claims to pay in full the amount of Government participation in the contract.

Hugh M. Connors

Hugh M. Connors

OFFICE ... RECEIVED
DATE
12/27 Received 500
~~12/22 Murphy~~
220

Building 20 - Federal Center
Denver 25, Colorado

December 18, 1962

Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Boulevard
Beverly Hills, California

Re: DMEA-1928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
(Green River Claims)
Emery County, Utah

Gentlemen:

Enclosed is a copy of the Report of Royalty Review on the subject contract dated December 13, 1962 covering the period December 1, 1959, through October 16, 1962 which shows that no royalty is due the Government at this time.

Yours very truly,

Original signed by

Hugh M. Connors
Acting Field Officer
OME, Region III

Enclosure

HMC/lm
cc Chief, Division of Field Operations
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres Idm-E926
Chron

Building 20 - Federal Center
Denver 25, Colorado

December 18, 1962

Memorandum

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

From: Acting Field Officer, OME, Region III

Subject: DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
(Green River Claims)
Emery County, Utah

Attached is the original Report of Royalty Review dated December 13, 1962 on the subject property covering the period December 1, 1959, through October 16, 1962.

Original signed by

Hugh N. Connors

Attachments

cc Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres. Idm-E926
Chron

Form 7
-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

December 13, 1962

Memorandum

To: Acting Field Officer, Region III

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

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

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

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

As evidence of your concurrence, a copy of your letter transmitting the copy to Four Corners Oil & Minerals Co. should be furnished this Division. If for any reason you do not concur, the original and both copies of the report should be returned to this Division with your comments.

Enclosures

EDTalbert/ama 12-13-62

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

43683

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

OFFICIAL FILE COPY
O. M. E
RECEIVED MAY 28 1962

DATE	INITIALS	CODE
APR 5/28 1962		800
	Received	500
	Murphy	
		220
Company		

Mr. Ray Wareham and
Mrs. Maribelle B. Wareham
Ferron, Utah

Re: DMEA-3928 (Uranium)
Pacific Uranium Mines
Green River Claims
Emery County, Utah
Contract Idm-E926

Dear Mr. and Mrs. Wareham:

In a letter, dated March 30, 1962, Four Corners Oil & Minerals Co. advised this office that it had purchased the Red No. 1 to 5 claims, inclusive. These claims, among others, are subject to the terms of the subject contract and its certification, as you were informed by our letter of May 9, 1957.

We would appreciate having a copy of the instrument transferring ownership of these claims. This would look to your own best interest as well as that of the Government.

Sincerely yours,

George Turnicliff
Director

Copy to:
Mr. Ervin Olsen and Mrs. Rhoda W. Olsen
Ferron, Utah

Note: On the same date Four Corners was advised of the Govts. royalty rights.

Dear George,

Here is the information you requested.

If there is anything else I can do for you just let me know.

Sincerely,
Ray

5.20

MINERAL QUITCLAIM DEED

RAY WAREHAM and MARIBELLE B. WAREHAM, husband and wife, and ERVIN OLSEN and RHODA W. OLSEN, husband and wife, all of Ferron, Utah, Grantors, for Ten Dollars ($10.00) and other good and valuable consideration, hereby grant, convey and quitclaim to FOUR CORNERS OIL & MINERALS CO., a corporation, with its principal place of business at Denver, Colorado, Grantee, all of their right, title and interest in and to the following identified unpatented lode mining claims situated in Emery County, State of Utah:

NAME OF CLAIM	BOOK AND PAGE OF RECORDING IN THE OFFICE OF THE COUNTY RECORDER OF EMERY COUNTY, UTAH	
Red #1	Book J-28	Page 127
Red Claim #2	Book J-28	Page 128
Red No 3	Book J-28	Page 129
Red Claim #4	Book J-28	Page 130
Red No 5	Book J-28	Page 131
Red #6	Book J-29	Page 179
The west one-half of Lone Susan No. 1	Book J-23	Page 413
The west one-half of Lone Susan No. 2	Book J-23	Page 414
Lone Susan Fraction No. I	Book J125	Page 578
LoneSusan Fraction No. 2	Book J125	Page 579

WITNESS the hands of the Grantors this 2 day of May, 1961.

Ray Wareham

Maribelle B. Wareham

Ervin O. Olsen

Rhoda W. Olsen

STATE OF UTAH)
: ss
COUNTY OF EMERY)

Personally appeared before me this 2 day of May, 1961, RAY WAREHAM AND MARIBELLE B. WAREHAM, husband and wife, and ERVIN OLSEN AND RHODA W. OLSEN, husband and wife, the four signers of the foregoing instrument, who duly acknowledged to me that they executed the same.

E. N. JENSEN NOTARY PUBLIC STATE OF

My Commission Expires:
Aug 4 1962

Notary Public

Residence Price, Utah

STATE OF UTAH)
: SS
COUNTY OF EMERY)

JUL 25 2 56 PM '61

BOOK 026 PAGE 308-9
COUNTY RECORDER

OFFICIAL FILE COPY

Date	Surname	Code
4/11	[illegible]	500
		500
		140
		140
		800
4/11	[illegible]	120
11	[illegible]	110
4/11	[illegible]	100
		220

APR 11 1962

Mr. Ray Wareham and
Mrs. Maribelle B. Wareham
Ferron, Utah

Re: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-8926

Dear Mr. and Mrs. Wareham:

In a letter, dated March 30, 1962, Four Corners Oil & Minerals Co. advised this office that it had purchased the Red No. 1 to 5 claims, inclusive. These claims, among others, are subject to the terms of the subject contract and its certification, as you were informed by our letter of May 9, 1957.

We would appreciate having a copy of the instrument transferring ownership of these claims. This would look to your own best interest as well as that of the Government.

Sincerely yours,

George Fumich, Jr.

Director

Copy to:
Mr. Ervin Olsen and Mrs. Rhoda W. Olsen
Ferron, Utah

FMMurphy/gla 4-3-62
Rewritten: WRGriswold/gla 4-10-62 and 4-11-62
cc to: Director's Reading File
Region III (2)
Docket

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/10	Griswold	500
"	Murphy	500
		140
		140
4/11	Talbot	800
4/11	Selbridge	120
"	Johnson	110
2nd	Fumich	100
		220

APR 11 1962

Mr. John F. Delander
Controller
Four Corners Oil & Minerals Co.
1575 Sherman Street
Denver 3, Colorado

Re: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Dear Mr. Delander:

This is in response to your letter of March 30, 1962, requesting certain information relating to the subject contract.

Under the terms of the contract and certification, the Government has royalty rights on production from the Red No. 1 to 5 claims, inclusive, and other claims listed in the contract for the period March 9, 1956, to March 9, 1968, or until the sum of $22,656.14 contributed by the Government has been repaid. You will note that Red No. 6 claim is not included in the contract. Any change of ownership of the claims does not affect the Government's royalty rights.

To date, the Government has been paid $4,823.65 in royalties, leaving a balance of $17,832.49 due the Government.

At present, there are no other operations contributing royalties from claims subject to this contract.

Sincerely yours,

Note: 4 Corners started paying royalty 4/26/62 $3217.76

George Fumich, Jr.

Director

FMMurphy/gla 4-3-62
Rewritten: WRGriswold/gla 4-10-62
cc to: Director's Reading File
Region III (2) w/2 cys incoming letter
Contract Division
Docket

Code 500

43683

Four Corners Oil & Minerals Co.
1575 SHERMAN ST.
[redacted]
ALPINE 5-0387
DENVER 3 COLORADO

OFFICIAL FILE COPY
O. M. E
RECEIVED APR 2 1962

DATE		
4/2	uw	800
"	Murphy	500
		220

March 30, 1962.

Director, Office of Minerals Exploration
Washington 25, D.C.

Dear Mr. Fumich:

This letter is to notify you that we have purchased by mineral quitclaim deed all of the right, title and interest from C.H. Snow, Don C. Snow, Virginia Snow, Ray Wareham, Maribelle B. Wareham, Ervin Olsen and Rhoda W. Olsen in the following Green River mining claims in Emery County, Utah:

Red #1 through #6 - Red 1 thru 5 only in contract
The west one-half of Lone Susan No.1
The west one-half of Lone Susan No.2
Lone Susan Fraction No.1
Lone Susan Fraction No.2
} not in contract

It is our understanding that when Pacific Uranium Mines Company was sub-lessee of certain mining claims in this area, the Warehams, Olsens and Browns, as apparent owners of these mining claims authorised the obtaining of a loan from Defence Minerals Exploration Agency under Docket DMEA 3928, Contract Idm-E 926. Please advise this company as promptly as possible as to whether any of our purchased claims are subject to a lien from any loan that your office made to Pacific Uranium Mines Company on our mining claims, and, if so, all details pertinent to the indebtedness that we may be subject to, including the original total loan, any payments by lessees or owners, the present outstanding balance and whether any other mining operation is contributing royalties from subject lands other than those held by us.

Very truly yours,

John F. Delander

John F. Delander
Controller

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 10 1960

DATE	INITIALS	AMOUNT
10-10	gad	220
10/10	[illegible]	800
~~10/10~~	~~[illegible]~~	~~[illegible]~~
		220

Building 20 - Federal Center
Denver 25, Colorado

October 6, 1960

Therald N. Jensen
Attorney at Law
Price, Utah

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Green River Claims)
Emery County, Utah

This will acknowledge receipt of your letter dated October 5, 1960 concerning the subordination of the Red Claims No. 1 to 5 inclusive.

As stated in my letter to you of October 3, 1960, there is a balance of $17,332.49 due the Government from future production of ore, from any one or more claims listed in the consent to lien dated February 17, 1956, or until March 9, 1968, whichever occurs first. In other words the repayment of the Government's contribution to the exploration of these claims may be paid from the ore produced from any one or more claims covered by the consent to lien.

If the Red Claims, or any other group of claims, covered by the consent to lien could be excluded, it would certainly not be to the best interests of the Government, since the Government's chances of obtaining repayment of it's contribution to the exploration would be lessened.

It might be well for you to inform Mr. Olsen that should he sell or lease any of his mining claims subordinated to the Government by the above mentioned consent to lien, he should inform the buyer or lessee of the Government's prior right to royalty on all ore produced. We have had cases in the past where the owner had forgotten his obligation to the Government and had given another a lease on the property without informing the lessee of the Government's royalty rights. In those cases we have had to collect the royalty due the Government from the signer of the consent to lien.

Yours very truly,

Original signed by

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

HMC/lm
cc: Chief, Division of Field Operations (2)
Contract Corres E926
Chron

THERALD N. JENSEN
ATTORNEY AT LAW
PRICE, UTAH
MEDFORD 7-1542

October 5, 1960

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 10 1960

DATE	INITIALS	CODE

Mr. Hugh M. Connors
Acting Field Officer, OME, Region III
U.S. Department of The Interior
Office of Minerals Exploration
Building 20 - Federal Center
Denver 25, Colorado

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Green River Claims)
Emery County, Utah

Dear Mr. Connors:

Thank you very much for your prompt and complete letter of October 3, 1960. The problem which confronts me is this: My client, Mr. Olsen, is a co-owner in the claims Red No. 1 to 5, inclusive. He has no interest in the other claims. I gather from your letter that there was a single contract on the exploration project and I am wondering under the circumstances what procedure should be followed in allocating the repayment between the owners of the respective claims. I will certainly appreciate any assistance you may render me in connection with this matter.

Thank you.

Very truly yours,

T. N. Jensen

TNJ:mb

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 3 1960

DATE		CODE
10-6	gad	VVO
"		800
~~Murphy~~		
		220

Building 20 - Federal Center
Denver 25, Colorado

October 3, 1960

Therald N. Jensen
Attorney at Law
Price, Utah

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Green River Claims)
Emery County, Utah

Dear Mr. Jensen:

Your letter to the Atomic Energy Commission dated September 26, 1960 has been forwarded this office for reply. On February 17, 1956 Ervin Olsen and Rhoda W. Olsen, husband and wife, signed a consent to lien to the United States of America on the following unpatented lode mining claims situated in Emery County, Utah, described as follows; Red No. 1 to 5 inclusive; Ajax No. 1 to Ajax No. 25 inclusive; Ajax Fraction No. 1 to Ajax Fraction No. 9 inclusive; Ajax Fraction Nos. 13, 14, and 21; Wills No. 1 to Wills No. 9 inclusive, Wills Fraction Nos. 6 and 9; Jeannie No. 1. All of said claims are situated in portions of sections 22, 26, 27, 34, and 35 in T. 21 S., R. 14 E.

The contract, dated March 9, 1956, covered an exploration project estimated to cost $73,840. Total accepted costs of the project were $30,208.18, of which the Government paid $22,656.14. The amount to be repaid the Government by means of royalty on production of ore, in accordance with the contract, is $22,656.14. The Government percentage royalty period extends to March 9, 1968.

The Royalty Review, dated August 16, 1960, on the subject project showed that $4,823.65 in royalty had been paid through November 30, 1959 leaving a balance of $17,832.49 due the Government from future production of ore, or until March 9, 1968, whichever occurs first.

Yours very truly,

Original signed by

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

HMC/lm

cc: R. H. Toole, Chief
Leasing & Development Branch
Production Evaluation Division
Chief, Division of Field Operations (2)
Contract Corres. E926 Chron

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

September 29, 1960

IN REPLY REFER TO: PLD:RHT

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 6 1960
DATE | INITIALS | CODE

Mr. Hugh M. Connors, Acting Field Officer
Office of Minerals Exploration, Region III
Building 20, Federal Center
Denver 25, Colorado

Dear Mr. Connors:

Attached is a letter from Mr. Therald N. Jensen, Attorney of Price, Utah requesting information that your office may wish to supply. Also attached is our letter to Mr. Jensen informing him that we have forwarded his letter to you.

Very truly yours,

R. H. Toole

R. H. Toole, Chief
Leasing & Development Branch
Production Evaluation Division

Attachment:
Ltr dtd 9/26/60 fm T.N. Jensen to AEC
Ltr dtd 9/29/60 fm R.H. Toole to T.N. Jensen

THERALD N. JENSEN
ATTORNEY AT LAW
PRICE, UTAH
MEDFORD 7-1542

September 26, 1960

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 6 1960
DATE | INITIALS
OME
DEPARTMENT OF THE INTERIOR
DENVER, COLORADO

Atomic Energy Commission
Grand Junction
Colorado

Gentlemen:

I am not certain just how this letter should be addressed and I will ask that you place it on the appropriate desk or forward it to the appropriate office for attention. I am writing this letter on behalf of Mr. Ervin Olsen. He is one of the co-owners of the unpatented uranium claims situated in Emery County, Utah, identified as Red 1 to 5 inclusive and situated in Section 22, Township 21 South, Range 14 East of the Salt Lake Meridian. During the year 1954, on August 18, 1954, Mr. Olsen and his co-owner Ray Wareham leased the Red claims to Haile Mines, Inc., a Delaware corporation with its place of business at 500 5th Avenue, New York 36, New York. Subsequently the lease was assigned to Union Carbide Corporation. We believe that a DMEA loan was secured by Haile Mines for the purpose of prospecting these claims and other claims.

Mr. Olsen would like information as to the amount of money which has been withheld from production on account of this DMEA loan and what, if any, continuing liability exists with respect to the claims above identified. The lessee, Haile Mines, also leased some adjacent property in which the Wills Numbers 1 to 9 inclusive, Ajax and other claims were involved.

Unfortunately Mr. Olsen does not have copies of any papers which he may have signed in connection with the DMEA application and I would like to know just what his obligation has been and what if any obligation continues. Specifically I would also like to know whether any withholding has been made from the Red claims to pay for any portion of the contract obligation of the Ajax claims.

Your early response to this letter will be appreciated and I am having Mr. Olsen sign this letter which will be his authorization for you to furnish me the requested information.

Very truly yours,

T. N. Jensen

TNJ:mb

The foregoing request is approved this 26th day of September, 1960.

Signed in the Presence of:

Marion Deans

Ervin Olsen

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 24 1960

DATE		
8-24	gad	220
8/24	EOT	800
~~8/25~~	~~Naughty~~	~~[illegible]~~
		225

Building 20 - Federal Center
Denver 25, Colorado

August 22, 1960

Memorandum

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

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

Subject: Docket No. EMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Enclosed is the original Report of Royalty Review on the subject contract through November 30, 1959.

Original signed by

Hugh M. Connors

Attachments
cc: Chief, Division of Field Operations (2)
Royalty Corres. E926
Chron

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 24 1960

DATE		
8-24	gad	100
8/24		800
		500

Building 20 - Federal Center
Denver 25, Colorado

August 22, 1960

Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Blvd.
Beverly Hills, California

Re: Docket No. BMEA-3928 (Uranium)
Contract IGm-E926
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Gentlemen:

Attached is a copy of the Report of Royalty Review pertaining to the captioned contract.

This report of Royalty Review shows that your Royalty account is in balance.

Yours very truly,

Original signed by

Hugh M. Cormors
Acting Field Officer
OME, Region III

Enclosure
HMC/lm
cc: Chief, Division of Field Operations (2)
Royalty Corres E926
Chron

MME Form
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
8/17	Fisher	800
8/17	gad	220
		500
		120
		225

AUG 17 1960

Memorandum

To: Acting Field Officer, Region III

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

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River claims
Emery County, Utah
Contract Idm-8926

Attached are the original and two copies of a Report of Royalty Review on the above cited project. If you concur in the facts stated in the report distribution should be made as follows:

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

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

Attachments

CEFisher/ama
August 17, 1960

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

43683

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O. M. E.
RECEIVED AUG 15 1960

DATE	INITIALS	CODE
8/15	Murphy	500
		225

Building 20 - Federal Center
Denver 25, Colorado

August 11, 1960

Memorandum:

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

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

Subject: DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Attached are the original and one copy of a check sheet of examining engineer on the subject property in accordance with your request of August 8, 1960.

Original signed by

Hugh M. Connors

HMC/lm
cc Chief, Division of Field Operations (2)
Contract Idm E 926
Chron

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
8/8	gad	220
	~~Murphy~~	~~300~~
		225

AUG 8 1960

Memorandum

To: Acting Field Officer, Region III

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

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River claims
Emery County, Utah
Contract Idm-E926

Reference is made to your memoranda dated June 21 and July 12, 1960.

The Solicitor of the Department of the Interior has expressed the opinion that the basis on which royalty has been paid for the period subsequent to April 1959 (that is, on basis of value of the mined ore determined according to AEC schedule) is applicable under provisions of the contract and the effective regulations. Thus, it would appear that proper royalty has been paid on the reported production.

Please forward an original and one copy of Check Sheet of Examining Engineer to be used in support of a Report of Royalty Review being prepared by this Division.

CEFisher/ama
August 8, 1960

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

43683

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

AUG 3 1960

Memorandum

To: Acting Director, Office of Minerals Exploration

From: The Solicitor

Subject: DMEA-3928 (uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract Idm-E926

Your undated memorandum asks certain questions concerning the payment of the Government's royalty under the subject contract.

The pertinent facts and circumstances as set forth in your memorandum and disclosed by an examination of the record are as follows:

The contract is dated March 9, 1956 and royalty is to be paid to the United States for a period ending March 9, 1968 (see Amendment No. 5). A certification of discovery and development dated May 8, 1957, was issued to the Operator, Pacific Uranium Mines Company, based on the results of exploration under the contract. On March 21, 1958, the Operator assigned all of its interest in the contract to Union Carbide Corporation. This assignment was never approved by the Government.

On September 15, 1958, Union Carbide Nuclear Company, a division of Union Carbide Corporation, made a contract with Vitro Uranium Company, a division of Vitro Corporation of America, to conduct certain mining operations on a portion of the property subject to the contract described as mining claims Red No. 1 and Red No. 2, located in Section 22, T. 21 S., R. 14 E., Salt Lake Meridian, in Emery County, Utah. Under Article 3(a) of that contract ore developed and mined shall become and remain the property of the Union Carbide Corporation. Article 3(g) then provides that if Union Carbide declines to accept delivery at its mills of any ore mined by Vitro, the declined ore shall be purchased by Vitro at a price to be an amount equal to 30 percent of the gross value thereof on the stockpile on said property (determined by rates established by AEC). From September 15, 1958, through April 1959, ore produced from the property was processed by

Union Carbide which made preliminary payments of royalty to OME based on the full value of the ore determined by AEC regulations. Subsequently, an adjustment was made for the royalties for this period based on the value of the refined products sold to AEC. During the period from May through November 1959, the production from the property was sold to Vitro at 30 percent of its gross value as provided in Article 3(g) of the contract dated September 15, 1958. Union Carbide has continued to pay the Government's royalties based on the full value of the ore determined according to the AEC schedule of rates. No subsequent adjustment based on the refined products has been made because Vitro, rather than Union Carbide, will process and sell the refined products.

Thus, subsequent to April 1959, Union Carbide has, in effect, been selling ore in the ground to Vitro at a price equal to 30 percent of the value of the ore after it is mined. Vitro has mined the ore and sold a refined product. Union Carbide has paid the Government royalty based on the full value of the mined ore rather than on the basis of 30 percent of such value which it receives from Vitro.

Based on the facts recited above, our opinion is requested regarding which of the following bases for computing royalty due the Government, for the period during which Vitro has sold the refined product, is acceptable under the provisions of Article 8 of the exploration contract:

(1) The basis on which settlements have been made, that is, on the value of the mined ore;

(2) The amount Union Carbide received from Vitro, that is, 30 percent of the value of the mined ore; or

(3) The value of the refined products sold by Vitro.

The exploration contract is on Form MF-200 (revised June 1954). Article 8(a) of the contract provides for certification in writing to the Operator of discovery or development. Article 8(c) then provides as follows:

> "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); <u>except</u>, that charges of <u>the buyer</u> 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 <u>the buyer</u>, sampling and assaying to determine the value of the production sold, and freight paid by <u>the buyer</u> 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."

The regulations of the Office of Minerals Exploration, 30 CFR 301.11(d) follow substantially the contract provisions quoted above.

In view of the provisions of the contract and the regulations, in our opinion, the first category of the bases mentioned above is applicable here and the Operator is required to pay royalty on the full value of the mined ore.

Although it is not necessary to the conclusion reached, we would like to point out that the assignment of March 21, 1958, from the Operator to Union Carbide Corporation conveying all of its right, title and interest in the subject contract, did not, without more, convey the Operator's interest in the mining property involved. It may be that the Operator and Union Carbide have made arrangements concerning the mining property. However, there is nothing in the record to support this conclusion.

GEORGE W. ABBOTT
The Solicitor

By: Charles M. Soller
Charles M. Soller
Associate Solicitor
Division of Mineral Resources

DMEA FORM 6 REFERENCE SLIP

REV. 12-56 DEFENSE MINERALS EXPLORATION ADMINISTRATION

TO:	INITIALS	DATE
1. Mr. Selridge	✓	✓
2. Mr. Johnson		
3.		
4.		
5.		
FROM: Talbert 8/5/60		

FOR: Check items for action desired

___ Action	___ Reply for signature of ___	
___ Approval	___ Investigate	___ Surname
___ Comment	___ Recommendations	___ Signature
___ Conference	___ Rewrite	___ File
___ Instructions	Your information	

REMARKS: Re.:DMEA-3928, E926, Pacific Uranium

Is the Solicitor's decision of 8/3/60 administratively acceptable? Final OK is required before preparation of a Report of Royalty Review. OK

Incidently, our review has disclosed that the Consent to Lien does not cover the claims involved, that is Red Nos. 1 and 2 or, as a fact, any of the Red Claims.

Talbert

INT.-DUP. SEC., WASH., D.C. M25803

DMEA-3928, Idm-E926, Pacific Uranium Mines Company
File Items Pertaining to Royalty Obligations

2/17/56 Consent to Lien (all claims, except Red Claims) by 8 individuals.

3/9/56 DMEA Contract with Pacific Uranium as principal & surety.

8/30/56 DMEA contract terminated by notice dated 12/8/58.

5/8/57 Certification of Discovery and Development to Pacific Uranium.

3/11/58 Option to Sublease (some claims, incl. Red Claims) to Union Carbide.

3/21/58 DMEA Contract assigned to Union Carbide (no Gov't. approval).

7/28/58 Union Carbide letter advises Option exercised.

9/15/58 Mining Contract (as owner, Red Claims 1 & 2 only) with Vitro Uranium Corporation, provides:

First - Vitro to mine ore,

Second - Receive 70% of gross ore value for work,

Third - All mined ore to remain property of Union Carbide, except Vitro obligated to purchase at 30% of gross ore value any ores declined by Union Carbide's mills.

11/4/59 Executive Officer advised Union Carbide royalty due on "yellowcake" instead of ore, as paid.

12/14/59 Union Carbide submitted check for difference on production through April 1959, but stated that subsequent production was sold as "ore" to Vitro.

9/58-4/59	Initial payment, ore basis	$2,480.96	
	Adjustment (approx. 57% addt'l.)	1,414.87	$3,895.77
5/59-11/59	Payment, ore basis		927.88
	Total		$4,823.65
	Estimated addt'l. (57%) if royalty possibly due on "yellowcake" & "redcake"		$ 528.90

Talbut 8/3/60

MME Form 7
(10-58)

SOLICITOR

JUL 18 1960

TERIOR DEPT.

OFFICIAL FILE COPY

Date	Surname	Code
7/15	Fisher	300
7/15	Talbert	800
7/18	Selfridge	120
		~~110~~
		220
		~~140~~
7/21	Zla	~~500~~
		225

JUL 18 1960

Memorandum

To: Associate Solicitor - Division of Mineral Resources

From: Acting Director, OME

Subject: DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River claims
Emery County, Utah
Contract Idm-E926

A certification of discovery or development dated May 8, 1957, was issued to the Operator, Pacific Uranium Mines Company, based on the results of exploration under the subject contract. On March 21, 1958, the Operator assigned all of its interest in and to the contract to Union Carbide Corporation. This assignment was never assented to by the Government.

As of September 15, 1958, Union Carbide Nuclear Company, Division of Union Carbide Corporation, entered into an agreement with Vitro Corporation of America whereby the latter company was to operate the property. From that date through April 1959 ore produced from the property was processed by Union Carbide Nuclear Company, who made preliminary payments of royalty to OME based on the full value of the ore determined by AEC regulations. Subsequently, an adjustment was made in the royalty payments for this period based on the value of the refined products sold to the AEC.

During the period May through November 1959 the production from the property was sold to Vitro Corporation of America at 30 percent of its gross value as provided in Article Third (g) of the agreement dated September 15, 1958. Union Carbide Nuclear Company has continued to pay the Government's royalty based on the full value of the ore determined according to the AEC schedule of rates. No subsequent adjustment based on the refined products has been made because Vitro, rather than Union Carbide, will process and sell the refined products.

Thus, subsequent to April 1959, Union Carbide has, in effect, been selling ore in the ground to Vitro at a price equal to 30 percent of the value of the ore after it is mined. Vitro has mined the ore and sold a refined product. Union Carbide has paid the Government royalty based on the full value of the mined ore rather than on the basis of 30 percent of such value which it receives from Vitro.

(a statement of [illegible], but see Cont memo 8/8/60)

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Your opinion is requested regarding which of the following bases for computing royalty due to the Government, for the period during which Vitro has sold the refined product, is acceptable under the provisions of Article 8 of the exploration contract:

(1) The basis on which settlements have been made, that is, on the value of the mined ore;

(2) The amount Union Carbide received from Vitro, that is, 30 percent of the value of the mined ore; or

(3) The value of the refined products sold by Vitro.

(signed) FRANK E. JOHNSON

Acting Director

CEFisher/fw-7/15/60

cc: Docket
Director's Read File
CA&A Division
Mr. Fisher
Chron.
Mr. Kirkemo

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

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O. M. E.
RECEIVED JUL 14 1960

DATE	INITIALS	CODE
7-14	gad	220
7/14	[illegible]	800
~~7-14~~	~~Murphy~~	~~500~~
		225

July 12, 1960

Memorandum

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

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

Subject: Docket No. DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co., Assignor
Union Carbide Corporation, Assignee
(Green River Claims)
Emery County, Utah

Reference is made to your memorandum dated June 24, 1960 on the subject contract. Attached is a letter dated June 8, 1960 from the Union Carbide Nuclear Company which answers your questions. The check for $73.83 and the attached data sheets which accompanied the attached letter will be forwarded in the regular manner.

Hugh M. Connors

Hugh M. Connors

Attachments

UNION CARBIDE NUCLEAR COMPANY • DIVISION OF UNION CARBIDE CORPORATION

P. O. BOX 1049, GRAND JUNCTION, COLORADO

OFFICIAL FILE COPY
O. M. E.
JUL 14 1960
CODE
OME
DEPARTMENT OF THE INTERIOR
JUL 11 1960
REGION III
DENVER, COLORADO

July 8, 1960

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

Attention: Hugh M. Connors

Re: Docket No. DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co., Assignor
Union Carbide Corporation, Assignee
(Green River Claims)
Emery County, Utah

Dear Sir:

We have your letter of June 29, 1960 concerning the above captioned claims.

Enclosed you will find our check for $73.83 representing adjustment of royalty on November production. As you surmised, we used the Vitro percentage of actual value in our original calculation. We have been unable to find however, that the settlement assay for U308 should be 0.19%.

In answer to your other questions, Union Carbide Corporation has not received the initial production bonus on ore from these claims as the claims were not certified for bonus. There has been no production subsequent to December 21, 1960.

We hope this is the information you require.

Yours very truly,

UNION CARBIDE NUCLEAR COMPANY

D. E. Clark
Office Manager

DEC/CSB/ah

Enclosure

E 926

$73.83

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 5 1960

DATE		
7-5	gad	VVO
7/5		800
~~7/6~~	~~Murphy~~	~~500~~
		225

Building 20 - Federal Center
Denver 25, Colorado

June 29, 1960

Mr. D. E. Clark, Office Manager
Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co., Assignor
Union Carbide Corporation, Assignee
(Green River Claims)
Emery County, Utah

Dear Mr. Clark:

Will you please advise if the Union Carbide Corporation has received the initial production bonus from ore produced from the captioned claims.

It appears that the "Ore Settlement" dated December 21, 1959 was improperly computed resulting in an underpayment of royalty to the Government. The average settlement assay for U_3O_8 is shown as 0.18% whereas it should be 0.19% and the price per pound is shown as $2.195 instead of $3.30 provided in the AEC schedule. The price for V_2O_5 used in the computation is $.217 instead of $.31 per pound. It would seem that this settlement has been based on 70% of actual values for uranium and vanadium which is the percentage of Vitro's interest in the ore under terms of the contract dated September 15, 1958. Will you please forward this office your check for the appropriate adjustment of this ore settlement.

Also will you please advise as to whether there has been any production from the captioned property subsequent to December 21, 1959. Your prompt reply to the three questions as noted above will be appreciated.

Yours very truly,

Original signed by

Hugh M. Connors
Acting Field Officer
OME, Region III

HMC/lm
cc: Chief, Division of Field Operations (2)
E. D. Talbert, Acting Chief,
Contract Administration and Audit Division

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Date	Surname	Code
6/24	Fisher	800
6/24	Selfridge	120
6/24	Coe	220
		225

JUN 24 1960

Memorandum

To: Acting Field Officer, Region III

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

Subject: TMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River claims
Emery County, Utah
Contract Idm-E926

Thanks for your memorandum of June 21, 1960. The letter dated June 20, 1960, from the Atomic Energy Commission is the best collateral verification of the status of the matter of initial production bonus relating to these claims. However, audit procedure requires that an audit or review be based on representations made by the individual or company whose records are under investigation. It is therefore desirable that our records show affirmation by Union Carbide that initial production bonus has not been received. This is especially desirable in view of the fact that Articles Second (b) and Third (g) of the agreement dated September 15, 1958, with Vitro reserve to Union Carbide the right to any initial production bonus applicable to the property.

Apparently the "Ore Settlement" dated December 21, 1959, is improperly computed resulting in an underpayment of royalty to the Government. The average settlement assay for U_3O_8 is shown as 0.18% whereas it should be 0.19% and the price per pound is shown as $2.195 instead of $3.30 provided in the AEC schedule. The price for V_2O_5 used in the computation is $.217 instead of $.31 per pound. It would seem that this settlement has been based on 70% of actual values for uranium and vanadium which is the percentage of Vitro's interest in the ore under terms of the contract dated September 15, 1958.

Will you please request Union Carbide to advise with respect to the initial production bonus and to make an appropriate adjustment with respect to the royalty paid applicable to the settlement dated December 21, 1959? Also, advice as to whether there has been any production subsequent to the latter date would be appreciated.

CEFisher/ama
June 24, 1960

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

43683

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DATE	INITIALS	CODE
6/23	Cae	210
		120
	~~Murphy~~	~~500~~
		225

Building 20 - Federal Center
Denver 25, Colorado

June 21, 1960

Memorandum

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

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

Subject: Docket No. DMRA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Green River Group of claims)
Emery County, Utah

This is in response to your memorandum of June 8, 1960 on the subject contract. Attached is a copy of a letter from the Atomic Energy Commission which states in effect that no bonus has been paid and no bonus will be paid on production of U_3O_8 from the subject property.

It is my understanding from the reply to our letter of November 4, 1959, that since April 1959 Royalty should be paid on the basis of the U_3O_8 content of the ore instead of Royalty based on the price of yellowcake.

Original signed by

Hugh M. Connors

Attachments
HMC/lm
cc: Chief, Division of Field Operations (2)
Royalty Corres. E926
Chron

OME
DEPARTMENT OF THE INTERIOR
JUN 21 1960
REGION III
DENVER, COLORADO

June 20, 1960

PLD:RHT

Mr. Hugh M. Connors, Acting Field Officer
Office of Minerals Exploration
Building 20, Federal Center
Denver 25, Colorado

Re: Docket No. DMEA-3928 (Uranium)

Dear Mr. Connors:

Your letter of June 13, to Mr. Kenneth L. Burson, has been referred to me for reply.

We have checked our records and can find no record of having received an application for certification of the claims named in Docket No. DMEA-3928 (Uranium) nor can we find that Pacific Uranium Mines Company have ever filed application for certification of claims in that area. Domestic Uranium Program Circular 6 provides that applications for certification must have been received by this office not later than April 18, 1960. Therefore it is now too late to make application.

If you require additional assistance in this matter, please let us know.

Very truly yours,

R. H. Toole, Chief
Leasing & Development Branch
Production Evaluation Division

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O. M. E.
RECEIVED JUN 16 1960

DATE	INITIALS	CODE
6/16	gad	220
6/16	[illegible]	800
6/16	[illegible]	500
		225

Building 20 - Federal Center
Denver 25, Colorado

June 13, 1960

Mr. Kenneth L. Burson, Director
Finance Division
Grand Junction Operations Office
Atomic Energy Commission
Grand Junction, Colorado

Dear Mr. Burson:

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Green River Group of claims)
Emery County, Utah

Will you please advise whether there has been a final determination as to the eligibility of the captioned property for the initial production bonus and the amount of any bonus that may have been paid by the AEC on this property.

According to our records more than 10,000 pounds of U_3O_8 has been produced from the property from November 1958 through December 1959. Your early reply will be appreciated.

Very truly yours,

Original signed by

Hugh M. Connors
Acting Field Officer
OME, Region III

HMC/lm
cc: Chief, Division of Field Operations (2)
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Corres. E 926
Chron

AE Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/6	Talbert	800
	F Murphy	500
	Mariano	500
6/8	GCL	120
6-8	gad	225

JUN 8 1960

Memorandum

To: Acting Field Officer, Region III

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

Subject: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River ~~Group of~~ claims
Emery County, Utah
Contract No. Idm-8926

This Division is contemplating the issuance of a Report of Royalty Review pertaining to the subject contract. Our review of the Washington office files has indicated some matters on which further information is deemed to be desirable and necessary.

No royalty has been received based on any bonus payments by the Atomic Energy Commission. In a letter dated August 24, 1959, Leland O. Erdahl, Acting Chief, Contract Finance Branch, Finance Division, AEC, Grand Junction, Colorado, advised Mr. Finch, the OME auditor formerly assigned to Region III, as follows:

> "Claims are not certified nor has an application for certification been received. Since the certification of the property is contingent upon several factors, it would be impossible to state at this time whether the listed production will be eligible for bonus. At the present time, it is not eligible."

Will you please advise whether there has been a final determination as to the eligibility of this property for the initial production bonus and the amount of any bonus that may have been paid by AEC? According to our records more than 10,000 pounds of U_3O_8 from this property were received at the buying station during the period November 1958 through April 1959.

In a letter dated December 14, 1959, with which Union Carbide Nuclear Company transmitted to Region III check No. 1105 in the amount $1,414.81 for the difference between royalty on gross value of U_3O_8 and V_2O_5 and royalty previously paid based on value of ore produced during the period November 1958 through April 1959, a statement was made that "since April 1959, we have not been processing

43683

the ore, but selling it to Vitro Uranium Company". From this statement it appears that the sales to Vitro are made under provisions of paragraph (g) of the Third part of the contract between Union Carbide and Vitro dated September 15, 1958, and that the "Ore Settlement" statements received in support of royalty payments for the period subsequent to April 1959 represent computation of the value of the ore under AEC regulations rather than any settlements made between those companies. Your advice on the matter would be appreciated.

The review indicates that proper royalty has been received for the period ending with April 1959, except for possible royalty on AEC bonus payments. However, there is a question regarding the basis on which royalty is due to the Government on production subsequent to that date; accordingly, all available information is desired as a basis for proper determination.

CEFisher/ama
June 7, 1960

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

UNION CARBIDE NUCLEAR COMPANY • DIVISION OF UNION CARBIDE CORPORATION

P. O. BOX 1049, GRAND JUNCTION, COLORADO

December 14, 1959

Mr. J. W. Townsend
United States Department of the Interior
Office of Minerals Exploration
Building 20 - Federal Center
Denver 25, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract Ida-E926
Pacific Uranium Mines Co., Assignor
Union Carbide Corporation, Assignee
(Green River Claims)
Emery County, Utah

Dear Mr. Townsend:

Reference is made to your letter of November 4, 1959 in which it is stated that the Government's royalty shall be a percentage of the gross proceeds from the production sold, in the form sold.

We enclose a statement* by month of production of yellow cake from the ores produced from the above captioned property. This is based on the monthly per cent of recovery at our Green River concentrator and Rifle mill.

We also enclose our check number 11055 in the amount of $1414.81 representing the difference between royalty on the gross value of product and royalties already paid on ore production. You will note that since April, 1959, we have not been processing the ore, but selling it to Vitro Uranium Company.

Yours very truly,

UNION CARBIDE NUCLEAR COMPANY

D. E. Clark
Office Manager

DEC/CSB/mm

*Filed with settlement sheets.

Enclosures

cc: Messrs. E. W. Haskins
C. P. Martin

DMEA-3928
E 926 Pacific Uranium Mines Co.

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 6 1959

DATE	INITIALS	CODE
11/6	RCW	225
11/9	[illegible]	808
	~~Murphy~~	~~500~~
		225

Building 20 - Federal Center
Denver 25, Colorado
November 4, 1959

Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company, Assignor
Union Carbide Corporation, Assignee
(Green River claims)
Emery County, Utah

Gentlemen:

Reference is made to Article 8(c) of the captioned contract which provides that the Government's royalty shall be a percentage of the gross proceeds from the production sold, in the form sold.

You sell the production in the form of yellowcake so the royalty should be based on the price you receive for yellowcake instead of the value of ore before milling as shown in A.E.C. Circular 5.

Royalty settlements to date are accepted as preliminary payments subject to adjustment when the value of the production in the form sold has been determined on a quarterly or other interim basis.

Very truly yours,

Original signed by

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

HMC:ltm

cc: Chmn. Op. Comm. (2)
Roy. Corres E926
Chron.

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

Building 20 - Federal Center
Denver 25, Colorado

August 28, 1959

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium), Contract No. Idm-E926 Pacific Uranium Mines Company, Assignor, Union Carbide Corporation, Assignee, (Green River Claims) Emery County, Utah

Enclosed are two copies of the Operator's letter of August 25, 1959, in reply to my letter of August 19, 1959, and one copy of the mining contract between Union Carbide Corporation and Vitro Uranium Company.

J. W. Townsend

Enclosure

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

DATE	INITIALS	
8/31	gad	VVO
		~~120~~
9/3	Murphy	500
		225

4

UNION CARBIDE NUCLEAR COMPANY • DIVISION OF UNION CARBIDE CORPORATION

P. O. BOX 1049, GRAND JUNCTION, COLORADO

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

DATE	INITIALS	CODE
		OME

DEPARTMENT OF THE INTERIOR
AUG 27 1959
REGION III
DENVER, COLORADO

August 25, 1959

Mr. J. W. Townsend
Executive Officer, OME
Field Team, Region III
United States Department of Interior
Building 20, Federal Center
Denver 25, Colorado

Re: Docket No. DMEA 3928, Contract No. Idm-E926
Pacific Uranium Company and Union Carbide Corporation
Emery County, Utah

Dear Sir:

Your letter of August 19 was received in which you make inquiries concerning the above mining contract.

Item 1: By mining contract dated September 15, 1958, Vitro Uranium Corporation is to mine Pacific Uranium's claims Red No. 1 and No. 2 for Union Carbide. Vitro is to receive 70% of the ore value and 100% of the development allowance. Union Carbide is to pay for ore haulage. The ore is to remain the property of Union Carbide and be delivered to their mills. However, Paragraph G of the third part states that if Union Carbide for any reason declines to accept delivery of the ore mined, Vitro shall purchase the ore from Carbide at 30% of the gross value. ?

Item 2: The contract also provides that the contractor shall not be entitled to any portion of the initial production bonus nor for any economic allowance under the Internal Revenue Laws.

Item 3: The development allowance was inadvertently left off of the two settlements dated April 7, 1959, and May 6, 1959. Adjustment was made on settlement dated August 20, 1959, paid by check No. 21458.

Attached you will find two copies of the instrument executed in conjunction with this mining contract. We trust that this answers the questions you posed in your letter of August 19. If we can be of any more service do not hesitate to call on us.

Very truly yours,

UNION CARBIDE NUCLEAR COMPANY

T. R. van Fleet
Assistant Manager of Mines

OME
DEPARTMENT OF THE INTERIOR
AUG 27 1959
REGION III
DENVER, COLORADO

OME
DEPARTMENT OF THE INTERIOR
AUG 27 1959
REGION III
DENVER, COLORADO

C O N T R A C T

Aug 15 1959

THIS AGREEMENT, made and entered into as of the fifteenth day of September, 1958, by and between UNION CARBIDE NUCLEAR COMPANY, Division of UNION CARBIDE CORPORATION, a New York Corporation, with offices at Grand Junction, Colorado, hereinafter called "Company," and VITRO URANIUM COMPANY, a Division of VITRO CORPORATION OF AMERICA, a Delaware corporation with offices at 600 West 33rd South, Salt Lake City, Utah, hereinafter called the "Contractor,"

W I T N E S S E T H :

WHEREAS, Company is the owner of certain mineral ground described in Schedule A, hereto annexed and made a part hereof, hereinafter referred to as the Mine, and

WHEREAS, the Contractor is an independent contractor engaged in contract mining, and has a staff of employees skilled in mining, and

WHEREAS, the Company is desirous of having certain work hereinafter described, performed at the Mine by an independent contractor and

WHEREAS, the Contractor is willing to undertake the said work on the terms and conditions hereinafter specified;

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter contained, the parties hereto have agreed and do hereby agree as follows:

FIRST, the Contractor covenants and agrees as follows:

(a) To enter forthwith upon said property and commence development work thereon, to diligently and continuously prosecute such development work until this agreement is terminated or until an ore body of sufficient magnitude to warrant commencement of mining operations is delineated, to commence mining ore and, except as otherwise provided by paragraph (g) of Article THIRD hereof, deliver the same to such one of the Company's mills as the Company shall, from time to time, designate, all such development and mining work and the delivery of ore being hereinafter referred to as the "work." The work shall be performed in accordance with good mining practice and with due diligence and in compliance with health and safety regulations and all other requirements of Federal, state and local governments, including, not by way of limitation, all necessary timbering and other work to place and maintain the mine in safe operating condition, maintenance of first aid equipment at the mine which meets the approval of the

State number [illegible] furnishing the Company a copy of any lost time accident report sent to either the State Compensation Insurance Fund of Colorado, or the State Insurance Fund of Utah, keeping the ore clean of injurious material and removal of barren material to locations at which it will not affect future mining operations. The term "development" herein used includes, but is not limited to, drilling to delineate an ore body, to make primary excavations required to expose ore for the purpose of extracting that ore; namely, but not exclusively, incline, raise, drift, shaft and cross cut excavations and any other work necessary to the development and mining of such ore.

(b) To provide at Contractor's own expense all mining machinery, equipment, tools, pipe, rails, timber and accessories thereto, and supplies necessary to the performance of the work and other operations to be performed by the Contractor.

(c) To post notices at the mine so as to hold the Company free and clear of any liability arising from the Contractor's operations; and to indemnify and save harmless the Company against all claims and demands whatsoever arising out of the Contractor's operations hereunder, including, but not limited to death and injuries to persons and damage to property.

(d) To supervise, direct and control such employees as the Contractor may require to properly perform this agreement, and to pay them on his own account.

(e) To reduce lumps of ore delivered to Company's ore bins to size so that they will not be in excess of twelve (12) inches at their greatest cross-section.

(f) To comply with all applicable statutes with respect to labor employed on the work, including, but not limited to, the Fair Labor Standards Act and the Walsh-Healy Act, and to protect and indemnify the Company against any payroll taxes or contributions imposed with respect to any employees of the Contractor by an applicable law dealing with old age benefits, unemployment compensation, accident compensation, health insurance, and related subjects.

(g) To insure at the cost and expense of the Contractor to each and every workman employed in, about or upon the work, the compensation provided for in and by each and every statute applicable thereto with respect to Workman's Compensation, occupational disease, and/or employer's liability; and to pay and discharge, or otherwise dispose of any and all claims, suits, actions and

demands of any nature whatsoever, for injury to persons, including death resulting therefrom, and loss of, or damage to, property, caused by or in connection with the performance of the work under this contract; and to procure and maintain, at the cost and expense of the Contractor until the termination of this contract, public liability insurance in a reputable and financially responsible insurance company, properly safeguarding the Contractor against liability for injuries to persons, including injuries resulting in death, and loss of and damage to property, in amounts not less than $50,000 for injuries, including death, to one person, $100,000 for injuries, including death, to two or more persons, and $50,000 for injury to or destruction of property in any one accident, and to furnish to the Company written certificates from insurance carriers or from appropriate governmental authorities establishing that said insurance of employees and said public liability insurance have been procured and are being properly maintained, and that the premiums therefor are paid, and specifying the names of the insurers and respective policy numbers and expiration dates. All such insurance policies shall provide (unless by statute applicable thereto it is otherwise provided) that in the event of cancellation thereof, written notice of such cancellation shall be given to the Company at least fifteen days prior to the effective date of such cancellation.

(h) To permit the Company full and free access to the Mine for the purpose of such inspection as is necessary to determine compliance with this agreement and with the usual health and safety regulations.

(i) To pay all costs and expenses of the work, including, but not limited to, labor porter, blasting caps, fuse and other materials as may be required for the work, and to save harmless the Company of and from liability for any and all such costs and expenses.

(j) To indemnify and save harmless the Company from laborers', mechanics', materialmen's liens and all other liens, claims, and any other charges upon the work and/or upon the premises upon which the work is located and/or upon the Company's machinery and equipment rented to the Contractor, arising out of the operations to be performed and materials furnished by the Contractor under this agreement, provided that the Company shall have paid to the Contractor all amounts due and payable to the Contractor under this agreement.

SECOND, the Company agrees:

(a) To give to the Contractor and his employees engaged in the work access to the premises at all times during the term hereof.

(b) Except as otherwise provided by paragraph (g) of Article THIRD, to pay to the Contractor for work performed hereunder (i) 70% of the gross value of the ore removed from said property by the Contractor and delivered to Company's mills, and (ii) a development allowance computed at the same rate allowed by the Atomic Energy Commission's circular or circulars applicable at the date when the ore is received for sampling. No transportation allowance, or any part thereof shall be payable to the Contractor, and the cost of transporting and loading the ore from the stockpiles on the property described in Schedule A to the ore bins at the Company's mills shall be paid by Company.

The gross value of ore under (i) above shall be determined by the rates established for the base price and applicable premiums for uranium and vanadium in Atomic Energy Commission Domestic Circular No. 5 Revised. For purposes of payments provided herein, weights, samples and assays taken in accordance with the standard practices of the Company's mills shall govern. The Contractor shall not be entitled to receive any portion of the initial production bonus which shall be paid to the Company. Payments to the Contractor for work completed during the first to the thirty-first days, inclusive, of each calendar months shall be paid on the fifteenth day of the following month according to the foregoing terms. It is understood and agreed that the Contractor has no economic allowance under the U.S. Internal Revenue Laws.

The standard practices of the Company's mills with respect to weights, samples and assays is defined to include, without limitation, the following:

1. The Company will determine the size lots to be sampled and analyzed through the Company's ore sampler from time to time.

2. The weight of each such load of ore that is delivered to Company's mill shall be determined by weight-o-meter or plant truck scales, and Company shall keep accurate records of the weight of all ores so delivered hereunder. The Company shall sample, assay, analyze and determine the moisture content, V_2O_5 and U_3O_8 content of all ore delivered to the mill by Contractor and the result of such analysis and moisture determination shall be used for the determination of the

quantities of U3O8 and V2O5 delivered.

3. Payment to the Contractor for the ore delivered during each period for which payment shall be made, will be made by the Company using a weighted arithmetical average of uranium content and vanadium content of all loads delivered during such period.

4. Contractor, at its expense, shall have the right to receive a portion of each sample taken and/or to have a representative present at the time samples are taken. Contractor shall have the right at its own expense to have its sample assayed by an independent assayer, In case of disagreement on assays, a reputable umpire, mutually acceptable to the parties, shall be selected. Said umpire's assay shall be final and conclusive upon the parties hereto. The party whose assay is furthest from the umpire's assay shall pay the cost of the umpire's assay, and if the umpire's assay is equally distant from the assay of each party, the cost of the umpire's assay shall be paid one-half by each party.

The Company may advance to the Contractor a sum equal to approximately 75% of the amount deemed to be due, if so desired by the Contractor, in advance of said payment date.

THIRD, both parties agree:

(a) All ore developed and mined under this contract shall be and remain the property of the Company. This contract does not contemplate any work by the Contractor upon the Company's ore now in dumps and the Contractor shall not perform any work with reference thereto.

(b) This contract may be terminated on or after December 14, 1958, by either party by notice in writing giving the other at least thirty days prior to the termination date specified in said notice. Notices may be given personally or sent by registered mail, postage prepaid, and addressed, if intended for Company, to Union Carbide Nuclear Company, P.O. Box 1049, Grand Junction, Colorado, and if intended for Contractor, addressed to Vitro Uranium Company, 600 West 33rd South, Salt Lake City, Utah. If notice of termination is sent by mail itshall be deemed to be served on the date of mailing. Unless terminated as herein provided, this agreement shall continue for the period beginning September 15, 1958, and ending August 31, 1959; provided however, that by notice given to the other

on or before July 30, 1959, either party may extend the period of this agreement for one year upon such terms and conditions as may be then mutually agreed upon.

(c) In the event that the Contractor shall fail to comply with the terms herein set forth, or any of them, the Company shall notify the Contractor of his default or failure, and if the Contractor shall fail to correct said default or failure within thirty days after service of such notice, the Company may then forthwith terminate this agreement without further notice, without prejudice to any other right or remedy which Company may have.

(d) This agreement may not be assigned in whole or in part by the Contractor without the prior written consent of the Company; nor shall this agreement be assignable or transferable by operation of law.

(e) The Contractor shall at all times during the term of this agreement have and exercise full and complete direction and control of the work.

(f) For a period of thirty days following the termination of this contract, Contractor shall have the right to remove pipe, rail, ore bins and other improvements placed upon said premises by Contractor, provided that timbering shall not be removed. Any improvements not removed within thirty days following termination of this contract shall become the absolute property of the Company.

(g) In the event Company, for any reason, declines to accept delivery at its mills of any ore mined by Contractor on the property described in Exhibit A, then said declined ore shall be purchased by Contractor from Company, the purchase price to be an amount equal to thirty per cent of the gross value thereof at the stockpiles on said property. Said gross value shall be determined by the rates established for the base price and applicable premiums for uranium and vanadium set forth in the Atomic Energy Commission's circular applicable at the date when said ore shall be purchased by Contractor. The Contractor, at its expense, shall promptly remove said declined ore from said stockpile. On or before the 15th day of each calendar month Contractor shall pay Company for said declined ore, mined during the preceding calendar month. Contractor shall not be entitled to any portion of the initial production bonus nor have any economic allowance under the U.S. Internal Revenue laws. Company shall have the same rights to weights, samples, assays and an umpire's decision with respect to said declined ore as are accorded Contractor under the provisions

of paragraph (b) Article SECOND.

(h) Contractor's performance of mining operations and of the delivery of ore hereunder may be suspended during any period when the same are prevented by adverse weather conditions, flood, fire or acts of God.

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

ARY

UNION CARBIDE NUCLEAR COMPANY
Division of
UNION CARBIDE CORPORATION

By _____
Manager of Mines and Exploration

VITRO URANIUM COMPANY
Division of
VITRO CORPORATION OF AMERICA

By _____

S C H E D U L E A

The mineral ground referred to in the amended Contract is described as:

Mining Claim: Rod No. 1

Mining Claim Rod No. 2

located in Section 22, Township 21 South, Range 14 East, Salt Lake Meridian in Emery County, Utah.

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

DATE	INITIALS	CODE
8/31	gad	VVO
		TVO
9/1	400	800
9/2	Murphy	~~800~~
		225

Building 20 - Federal Center
Denver 25, Colorado

August 28, 1959

Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company, Assignor,
Union Carbide Corporation, Assignee
(Green River claims)
Emery County, Utah

Gentlemen:

A check of A. E. C. records in conjunction with the royalty audit that is in progress disclosed that the following shipments have been made on which royalty had not been paid to the Government.

Claim	Date	Liq. No.	Delivered to:	Pounds U308
Red No. 2	April, '59	59/4-28	Vitro Uranium Company	508.81
Red No. 2	May, '59	59/5-26	Vitro Uranium Company	808.75

Subsequent to check of A. E. C. records, the settlement sheet and royalty payment have been received on a lot of 808.75 Pounds U308, dated August 20, 1959, with receiving date 5-1 -- 5-31-59, but the settlement sheet does not bear the liquidation number 59/5-26. Please advise concerning it.

Please forward royalty payment and settlement sheets on liquidation number referred to above as 59/4-28 and for liquidation number 59/5-56 if it is not the same as the one received under date of August 20, 1959.

Very truly yours,

Original signed by

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

JWT/cg

cc: Chmn. Op. Comm. (2)
Finch
Roy. Corres. E-926
Chron.

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

DATE	INITIALS	CODE
8/24	gad	220
		120
8/24	[illegible]	800
8/25	[illegible]	~~500~~
		225

Building 20 - Federal Center
Denver 25, Colorado
August 19, 1959

Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company, Assignor,
Union Carbide Corporation, Assignee
(Green River Claims)
Emery County, Utah

Gentlemen:

An Audit by the Contract Administration and Audit Division, ONE, of production and royalty due the Government since March 9, 1956, is currently in progress, as a result of which, the following questions require clarification:

(1) The contract was assigned from Pacific Uranium Mines Company to Union Carbide Corporation, but it appears that ore from the property is being sold by Vitro Uranium Company. The question arises, what is the arrangement between Union Carbide Corporation and Vitro Uranium Company, that is, has the property been leased to Vitro Uranium Company, or are they merely performing contract mining?

Forwarding of two copies of any instrument executed in conjunction with the matter will be appreciated.

(2) What is the status of the AEC Bonus?

(3) Why was the development allowance eliminated from the last two settlement sheets dated April 7, 1959, and May 6, 1959?

Prompt forwarding of the above requested information will be appreciated.

Very truly yours,

Original signed by

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

JWT:ltm

cc: Chmn. Op. Comm. (2) w/cpy Finch
Hasler) Memorandum
Roy. Corres. E926) 8/17/59
Finch
Chron.

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

DATE	INITIALS	CODE

224 New Customhouse
Denver 2, Colorado
August 17, 1959

Memorandum

TO: J. W. Townsend, Executive Officer, OME Field Team, Region III

From: Donald T. Finch, OME Auditor

Subject: Vitro Uranium Corporation, Lessee, Union Carbide Company, Assignee Pacific Uranium Mines Company (Green River Claims, Emery County, Utah, Docket No. DMEA 3928 (Uranium) Contract No. Im-E926

The royalty correspondence files show copy of assignment of original contract to Union Carbide Corporation on March 21, 1958.

On March 24, 1959, Mr. H. F. Robertson, Mining Engineer, USBM, advised your office of ore shipments by Vitro Uranium Company which he describes as lessee from Union Carbide Nuclear Company and Pacific Uranium Mines Company.

On April 7, 1959, royalty payments were transmitted by letter from Union Carbide Nuclear Company, a division of Union Carbide Corporation, P. O. Box 1049, Grand Junction, Colorado. These royalty payments were supported by copies of "Contract Mining Settlement" which indicated Vitro Uranium Company as "Contract Miner". These statements contain the usual settlement sheet data. Production reported covers the period November 1958 to April 30, 1959. Royalty payments made do not include any royalty on AEC Production Bonus. If production bonus is applicable to this production, it appears there is $1750.00 additional royalty due on the reported production.

Another point was noted that the settlement sheets applicable to November 1958, thru February 1958, carried a value for AEC Development Allowance of $4.50 per pound of U_3O_8 content. Settlement sheets applicable to March and April 1959 production, do not reflect this allowance. If such allowance is applicable to the March and April production, it appears there is an additional royalty due of $61.15.

Based on our telephone conference today, it is understood your office may wish to contact the Union Carbide Corporation for clarification of the following points:

OME
DEPARTMENT OF THE INTERIOR
AUG 18 1959
REGION III
DENVER, COLORADO

1. What is the nature of the arrangement with Vitro Uranium Corporation. (ie.) Is it a true lessee, or is it merely performing contract mining? It seems this point should be determined in order to establish if there is a sale of ore by "Vitro" to "Union Carbide".

2. What is the status of the AEC Production Bonus?

3. Why was the development allowance eliminated from the last two settlement sheets?

The completion of the royalty review will be deferred pending the receipt of your reply to this memorandum and also the receipt of my request for production confirmation from the AEC.

Donald T. Finch

Donald T. Finch

DTF:ltm

cc: 6
Chron.

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 21 1959

DATE	INITIALS	CODE
8-21	gad	VVO
8-21	[illegible]	800
8/21	Murphy	500
		225

224 New Customhouse
Denver 2, Colorado
August 17, 1959

Memorandum

TO: J. W. Townsend, Executive Officer, OME Field Team, Region III

From: Donald T. Finch, OME Auditor

Subject: Vitro Uranium Corporation, lessee, Union Carbide Company, Assignee Pacific Uranium Mines Company (Green River Claims, Emery County, Utah, Docket No. DMEA 3928 (Uranium) Contract No. Idm-3926

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Another point was noted that the settlement sheets applicable to November 1958, thru February 1958, carried a value for AEC Development Allowance of $.50 per pound of U_3O_8 content. Settlement sheets applicable to March and April 1959 production, do not reflect this allowance. If such allowance is applicable to the March and April production, it appears there is an additional royalty due of $61.15.

Based on our telephone conference today, it is understood your office may wish to contact the Union Carbide Corporation for clarification of the following points:

1. What is the nature of the arrangement with Vitro Uranium Corporation. (ie.) Is it a true lessee, or is it merely performing contract mining? It seems this point should be determined in order to establish if there is a sale of ore by "Vitro" to "Union Carbide".

2. What is the status of the AEC Production Bonus?

3. Why was the development allowance eliminated from the last two settlement sheets?

The completion of the royalty review will be deferred pending the receipt of your reply to this memorandum and also the receipt of my request for production confirmation from the AEC.

Donald T. Finch

Donald T. Finch

DTF:ltm

cc: 6
Chron.

Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/10/59	Murphy	700
4/10	Kuberle	700
4/13	Talbot	800
4/14	Martin	130
4/13	Kilegaard	130 ~~110~~
		~~100~~
4/15	C	220
		700
4/14	Johnson	130

APR 14 1959

Mr. Bernard M. Silbert, President
Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Boulevard
Beverly Hills, California

Re: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract No. Idm-E926

Dear Mr. Silbert:

Reference is made to our letter of May 9, 1957, enclosing a certification of discovery or development covering the subject property.

Subsequent to this letter the Government's percentage royalty period was extended to March 9, 1968, by Amendment No. 5, dated October 28, 1957. In accordance with our final audit pertaining to the subject contract, the amount which is repayable by your company through royalty on production is $22,656.14. Payments should be made in accordance with the instructions contained in the above-mentioned letter except that checks should be made payable to the Office of Minerals Exploration and sent to the Executive Officer at 224 New Customhouse Building, Denver 2, Colorado.

Sincerely yours,

Frank E. Johnson (for)

Acting Director

CC: T. S. Ary, Manager of Exploration
Union Carbide Nuclear Company
P. O. Box 1049, Grand Junction, Colorado

Ray Wareham and Maribelle B. Wareham, Ferron, Utah

Ray Wareham, Attorney in Fact for Earnest C. Wareham and Jeanne C. Wareham, Ferron, Utah

Ervin Olsen and Rhoda W. Olsen, Ferron, Utah

Lyman P. Brown and Catherine J. Brown,
c/o Ray Wareham, General Delivery, Ferron, Utah

FMMurphy/gla 4-10-59
cc: Director's Reading File
FEJohnson
Operating Committee
Div. of Contract Adm. & Audit
Frank D. Lamb, Rm. 3608
THKilsgaard, Rm. 5224
OME Field Team, Region III (2)
FMMurphy

43683

OFFICIAL FILE COPY

Date	Surname	Code
4/9/59	Murphy	700
4/9	Krause	700
4/9	Talbot	800
		130
		110
		100
		220
		700

Mr. ~~A. E. Hurley, President~~
Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Boulevard
Beverly Hills, California

Re: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract No. Idm-E926

Dear Mr. Hurley:

Reference is made to our letter of May 9, 1957, enclosing a certification of discovery or development covering the subject property.

Subsequent to this letter the Government's percentage royalty period was extended to March 19, 1968, by Amendment No. 5, dated October 28, 1957. In accordance with our final audit pertaining to the subject contract, the amount which is repayable by your company through royalty on production is $22,656.14. Payments should be made in accordance with the instructions contained in the above-mentioned letter except that checks should be made payable to the Office of Minerals Exploration and sent to the Executive Officer at 224 New Customhouse Building, Denver 2, Colorado.

Sincerely yours,

Acting Director

cc: T. S. Ary, Manager of Exploration
Union Carbide Nuclear Company
P. O. Box 1049, Grand Junction, Colorado

Ray Wareham and Maribella B. Wareham, Ferron, Utah

Ray Wareham, Attorney in Fact for Earnest C. Wareham and Jean C. Wareham, Ferron, Utah

Ervin Olsen and Rhoda W. Olsen, Ferron, Utah

Lyman P. Brown and Catherine Brown,
c/o Ray Wareham, General Delivery, Ferron, Utah

FMMurphy/gla 4-9-59
cc: Director's Reading File
FEJohnson
Operating Committee
Div. of Contract Adm. & Audit
Frank D. Lamb, Rm. 3608
THKillsgaard, Rm. 5224
OME Field Team, Region III (2)
FMMurphy

43683

OME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/10/59	Murphy	700
		700
4/13	Talbot	800
4/14	Martin	130
4/13	Kilegaard	~~110~~ 130
		~~110~~
		~~100~~
		220
		700

4/14 Jonphson (130)

Mr. Jesse C. Johnson
Director, Raw Materials Division
Atomic Energy Commission
Washington 25, D. C.

Re: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract No. Idm-E926

Dear Mr. Johnson:

In accordance with our letter of May 9, 1957, we are supplying the following additional information regarding the subject certified project for your records.

The contract, dated March 9, 1956, covered an exploration project estimated to cost $73,840.00, with Government participation amounting to 75 percent, or $55,380.00. Total accepted costs of the project were $30,208.18, of which the Government paid $22,656.14.

The project work explored the unpatented lode mining claims Ajax Nos. 1-25, inclusive; Wills Nos. 1-9, inclusive; Red Nos. 1-5, inclusive; Jeannie No. 1; Ajax Fractions Nos. 1-9, inclusive, 13, 14, and 21; and Wills Fractions Nos. 6 and 9, situated in secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S.L.B.M., Emery County, Utah.

The approved exploration work consisted of drilling 46 holes, aggregating 10,855 feet of non-core and 3,304.5 feet of core drilling. The holes were drilled from surface and were cored through the potential uranium ore-bearing upper sandstone beds of the Salt Wash member of the Morrison formation.

Only a part of the drilling authorized by DMEA was completed. The indicated ore bodies appear to be small (200 tons) and relatively thin. Indicated and inferred reserves totaling 1,369 tons containing 0.59 percent U_3O_8 are computed on the basis of DMEA drilling. Ore reserves, developed prior to the DMEA project, are estimated by the Operator to total 6,000 tons containing approximately 0.38 percent U_3O_8.

Sincerely yours,

Frank E. Johnson (for)

Acting Director

cc: Elton A. Youngberg

FMMurphy/gla 4-10-59
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
W. N. Chamberlain
F. M. Murphy
OME Field Team, Region III (2)
THKilsgaard, Rm. 5224

43683

OME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/25/59	Murphy	700
3/27	[illegible]	700
4/9	Talbert	800
		130
		110
		100
		220
		700

Mr. Jesse C. Johnson
Director, Raw Materials Division
Atomic Energy Commission
Washington 25, D. C.

Re: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract No. Idm-4926

Dear Mr. Johnson:

In accordance with our letter of May 9, 1957, we are supplying the following additional information regarding the subject certified project for your records.

The contract, dated March 9, 1956, covered an exploration project estimated to cost $73,840.00, with Government participation amounting to 75 percent, or $55,380.00. Total accepted costs of the project were $30,208.18, of which the Government paid $22,656.14.

The project work explored the unpatented lode mining claims Ajax Nos. 1-25, inclusive; Wills Nos. 1-9, inclusive; Red Nos. 1-5, inclusive; Jeannie No. 1; Ajax Fractions Nos. 1-9, inclusive, 13, 14, and 21; and Wills Fractions Nos. 6 and 9, situated in Secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S.L.M.B., Emery County, Utah.

The approved exploration work consisted of drilling 46 holes, aggregating 10,855 feet of non-core and 3,304.5 feet of core drilling. The holes were drilled from surface and were cored through the potential uranium ore-bearing upper sandstone beds of the Salt Wash member of the Morrison formation.

Only a part of the drilling ~~approved~~ authorized by DMEA was completed. The indicated ore bodies appear to be small (200 tons) and relatively thin. Indicated and inferred reserves totaling 1,369 tons containing 0.59 percent U_3O_8 are computed on the basis of DMEA drilling. Ore reserves, developed prior to the DMEA project, are estimated by the Operator to total 6,000 tons containing approximately 0.38 percent U_3O_8.

Sincerely yours,

Acting Director

cc: Elton A. Youngberg

~~Div. of Contract Adm.~~
OME Field Team, Region III (2)
Mr. Murphy
W. N. Chamberlain

FMMurphy/gla 3-25-59
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
THKillsgaard, Rm. 5224

43683

224 New Customhouse
Denver 2, Colorado
April 7, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 13 1959
DATE
4-13 C 220
~~4-15 Murphy~~ 700

Mr. A. E. Harley, President
Pacific Uranium Mines Company
Suite 210
292 South La Cienega Blvd.
Beverly Hills, California

Re: Docket ~~EMEX 3983~~ (Uranium)
Contract ~~IBm-3926~~
Green River, et al. claims
Emery County, Utah

Dear Mr. Harley:

We have been advised that two shipments of ore were made from the captioned property during November and December 1958. One shipment contained 145.10 and the other shipment contained 296.78 dry tons of ore.

Please furnish this office two copies of the instrument, giving another the right to mine and remove ore from the subordinated property, in the event that the Pacific Uranium Mines Company did not mine or ship these two lots of ore. Also, please forward this office three copies of each settlement sheet and your check for the amount of royalty due.

Very truly yours,

Original signed by
J. W. TOWNSEND

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

EMC/ff
cc: Chmn. Op. Comm. (2) w/copy of Robertson's memo dated
Robertson March 24, 1959
Royalty file, E926
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III
P. O. Box 360
Grand Junction, Colorado

Memorandum

To: Executive Officer, GME Field Team, Region III

From: H. F. Robertson

Subject: DMEA 3928 (Uranium), Contract Idm-E 926, Pacific Uranium Mines Company (Red No. 2 claim), Emery County, Utah. Production during period July 1 - December 31, 1958.

The following two shipments of ore were taken from ground subject to DMEA royalty and were shipped by Vitro Uranium Company, lessee of the present owners, Union Carbide Nuclear Company and Pacific Uranium Mines Company. Apparently the production has not been reported to your office.

Liq. No.	Date	Dry Tons	Lbs. U_3O_8	Lbs. V_2O_5
None	Nov. 1958	145.10	986.65	1,683.15
None	Dec. 1958	296.78	1,991.62	3,218.01
Total		441.88	2,978.27	4,901.56

According to the A.E.C. production records, the ore is first taken to the U.C.N. concentrator at Green River, Utah, then to the U.C.N. mill at Rifle, Colorado. The Tonnage and grade values in the A.E.C. records appear to refer to raw ore before treatment in the U.C.N.concentrator.

I contacted Mr. T. S. Ary of Union Carbide Nuclear Company regarding the unpaid royalty. He, in turn, informed the company accounting department that the royalty was due. In the near future, you should receive settlement sheets and royalty on the two shipments made during the period July 1 - December 31, 1958. I assume that any other past-due royalty will be paid at the same time since the company now knows that it is liable for payment of royalty on future production from the subordinated ground.

H. F. Robertson
Mining Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

224 New Customhouse
Denver 2, Colorado
April 2, 1959

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APR 6 1959
DATE | CODE
4-6 | C | 220
4 | | 110
~~4-7 Murphy~~ | | ~~700~~

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium) Contract Idm-E926
Pacific Uranium Mines Company, (Green River group of claims) Emery County, Utah - FINAL PAYMENT

Enclosed are two copies of a memorandum to T. A. Christensen, dated March 31, 1959, relative to final payment under the terms of the subject contract.

J. W. Townsend

Enclosure

224 New Customhouse
Denver 2, Colorado
March 31, 1959

Memorandum

To: T. A. Christensen

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3988 (Uranium) Contract Idm-8926, Pacific Uranium Mines Company, (Green River group of claims) Emery County, Utah - FINAL PAYMENT

Reference is made to our memorandum of October 3, 1956, whereby we forwarded the final Form MF-104, Operator's Monthly Report and Voucher, for the month of August 1956, and requested that you withhold an amount of $500.00 from reimbursement to the Operator, pending performance of additional work under the contract.

Contract work was not resumed by the Operator and the contract was terminated under the provisions of Amendment No. 5, effective August 30, 1956. The Operator's final report has been received, therefore final payment to the Operator is to be made on the following basis, which is in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, OME, dated March 19, 1959, which includes audit disallowance of costs in the amount of $254.13.

Basis for Final Payment

Total accepted cost	$30,208.18
Government participation at 75 percent	22,656.14
Total prior payments	22,346.74
Balance due the Operator	$ 309.40

Original signed by
J. W. TOWNSEND

J. W. Townsend

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
Hasler
Robertson, OME/GJ
OME/DFC
Corres.file, Reg. III
Cooper
Chron
MF-104 file, Reg. III

$309.40

4/1/59 OME 59-99

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
10/9	Fisher	800
	Murphy	500
	Frank	500
10/12	Selfridge	120
"	Johnston	110
10/12	RCW	220

225

OCT 12 1959

Memorandum

To: Mr. Donald T. Finch, OME Auditor

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

Subject: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Contract No. Idm-E926

Thanks for your memorandum dated October 5, 1959, and attachments showing the royalty status of this contract.

Your footnote on the "Summary of Production of Uranium Ores" points out that royalty paid to date has been computed on the value of ore before milling or concentration, based on A. E. C. Circular 5, rather than on gross proceeds in the form sold as provided by Article 8(c) of the contract. The situation in this case appears to be analogous to that in connection with Contract No. Idm-E823, Docket No. DMEA-3514, Climax Uranium Company, which was the subject of the Operating Committee's letter to Mr. Townsend dated June 9, 1958.

A review of the docket files does not indicate that Union Carbide Nuclear Company has been informed that the royalty settlements to date are accepted as preliminary payments subject to adjustment when the value of the production in the form sold has been determined.

It is suggested that you invite Mr. Townsend's attention to this matter.

CEFisher/ama
October 9, 1959

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

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
March 31, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 3 1959
CODE
220
700

4-6 C
~~4-7 Murphy~~

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium) Contract Idm-E926, Pacific Uranium Mines Company, (Green River group of claims) Emery County, Utah - FINAL SUMMARY REPORT

The original and two copies of a Joint Final Engineering and Geologic Report, by the OME field examiners, were forwarded by memorandum of February 19, 1959. The original and one copy of the Operator's final report were forwarded by memorandum of March 13, 1959.

Due to failure by the Operator to resume project work, the contract was terminated effective August 30, 1956, under the provisions of Amendment No. 5, and the Operator was so notified by letter of December 5, 1958, from the Acting Director, OME.

Final payment of the Operator's account was processed by this office March 31, 1959, in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, OME, dated March 19, 1959.

Exploration work completed under the contract consisted of the drilling of 46 holes aggregating 10,855 feet of non-core drilling and 3304.5 feet of core drilling. Additional work or service incident to the drilling consisted of 53 hours bulldozing, incidental allowance for 14,159.5 feet of drilling and analysis of 23 samples for uranium content; all at a total accepted cost of $30,208.18, toward which the Government contributed 75 percent, or $22,656.14.

The exploration work completed resulted in the discovery of a significant quantity of uranium ore on which a Certification of Discovery or Development was issued May 8, 1957.

By J. W. Townsend
J. W. Townsend

By E. N. Harshman
E. N. Harshman

OFFICIAL FILE COPY

Date	Surname	Code
3/23	G. McCarthy	800
3/23	Talbot	800
3/23	C	220
		700

Memorandum

To: Donald T. Finch, OIF Auditor

From: Jay L. Chambers (Signed) J. L. Chambers
Contract Administration and Audit Division

Subject: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Contract No. Idm-E926

Your Report of Review on the subject contract is acceptable and normal distribution is authorized.

GMcCarthy/GMcC
March 23, 1959

cc: Docket
Director's Reading File
Mr. Chambers

8623

OFFICIAL FILE COPY
C. M. E.
RECEIVED MAR 20 1959

DATE	INITIALS	CODE
3-20	C	220
	Naughton	Fall

224 New Customhouse
Denver 2, Colorado
March 13, 1959

Memorandum

To: Donald T. Finch, CME Auditor

From: Executive Officer, CME Field Team, Region III

Subject: Docket No. MEEA 3988 (Uranium) Contract Idm-E906, Pacific Uranium Mines Company, (Green River claims) Emery County, Utah

The subject contract was terminated effective August 30, 1956, in accordance with the provisions of Amendment No. 5, item 4(a)(1), to the contract, and the Operator was so notified by letter of December 5, 1958, from the Acting Director, CME, a copy of which is attached for your records.

The Operator's final report has been received, therefore, final payment of the Operator's account is in order, contingent on release to this office of a Certificate and Report of Audit, or Report of Review, of reported project costs, whichever the case indicates.

Work or service completed on a fixed unit cost basis consisted of Incidental Allowance for 14,210 feet of drilling, and analysis of 23 samples for uranium content. Pre-audit analysis indicates that additional disallowance of 50.5 feet will be made, which will bring the acceptance total for this item to 14,159.5 feet.

The sum of $500.00 was withheld from reimbursement to the Operator in processing its final accounting report, which was for the month of August, 1956.

Original signed by
J. W. TOWNSEND

J. W. Townsend

Enclosure

JWC:tmh

cc: Chgn. Op. Comm. (2)
Kaufman
Kuller
Robertson, CME/GI
Corres. file, Rg. III
Cooper
Chron

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 20 1959

DATE	INITIALS	CODE
3/20	C	220
3/20	[illegible]	800
3/20	Murphy	700

224 New Customhouse
Denver 2, Colorado
March 13, 1959

Mr. T. S. Ary,
Manager of Exploration
Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. RMRA 3928 (Uranium)
Contract Lim-R926
Pacific Uranium Mines Company
(Green River claims,)
Emery County, Utah

Dear Mr. Ary:

Reference is made to your letter of March 11, 1959, regarding the Operator's final report for the captioned contract.

A final engineering and geologic report by John H. Volgamore, Geologist for Pacific Uranium Mines Company, was received in this office March 12, 1959, therefore it will not be necessary for you to submit a report for the project.

Your attention in the matter is appreciated.

Very truly yours,

Original signed by
J. W. TOWNSEND

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

cc: Mr. Bernard M. Silbert
Pacific Uranium Mines Co.
Suite 210, 292 S. LaCienega Blvd.
Beverly Hills, California

JBC:hmh
cc: Chmn. Op. Comm. (2)) w/copy of
Corres. file, Reg. III) Operator's letter of 3/11/59
Harshman
Belser, OME/DFC
Cooper
Chron

UCC

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 20 1959

INITIALS	CODE

OME
DEPARTMENT OF THE INTERIOR
MAR 13 1959
REGION III
DENVER, COLORADO

March 11, 1959

Mr. J. W. Townsend
Executive Office of the O.M.E.
Field Team, Region 3
224 New Customs House
Denver, Colorado

Subject: Docket DMEA-3928 (Uranium)
Contract IDM-E-926
Pacific Uranium Mines Company
(Green River Claims, Emery County, Utah)

Dear Mr. Townsend:

Mr. Silbert of the Pacific Uranium Mines has forwarded your letter concerning the final report on the Pacific property. I am contacing Mr. J. Wm. Hasler of Grand Junction about the form of this report and will supply this report to you in the very near future.

As you are well aware, the Pacific Uranium property has been acquired by Union Carbide on a split of the net profit type agreement, and we have done none of the DMEA work on this property. Furthermore, as I explained to you in Denver, we have never done any DMEA work. Therefore, the preparation of this report is not going to be as speedy as if we had been writing government reports in the past.

I am in hopes that through Mr. Hasler's help, we will be able to compile all the necessary information you have requested and will be able to forward to you five copies of this report prior to March 20. In the event, we are unable to do this, we will certainly notify you.

Very truly yours,

T. S. Ary
Manager of Exploration

TSA/ab

cc: Mr. Frank E. Johnson, Acting Director
Mr. Bernard M. Silbert, President of Pacific Uranium Mines Co.

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

RECEIVED
DEC 19 1955

224 New Customhouse
Denver 2, Colorado

December 14, 1955

Memorandum

To: Secretary, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 3620 (Uranium), Contract Idm-E792, Uranium Prospectors Company, Ltd., Emery County, Utah

Enclosed are the following final reports pertaining to work completed under the subject contract:

1. Original and one copy of the Operator's final report.

2. Original and three copies of the joint memorandum report by W. E. Young, Mining Engineer, Bureau of Mines, and D. D. Haynes, Geologist, Geological Survey, and transmittal thereof from Stephen R. Wilson and J. William Hasler, dated December 6, 1955.

Final payment to the Operator was processed by this office September 15, 1955, in conformance with the Report of Review by the Contract Administration and Audit Division, dated September 7, 1955.

The exploration work consisted of drill site preparation and the drilling of 9,131 feet of noncored drill hole and 1,582 feet of cored drill hole, at a total accepted cost of $27,926.81, in which the Government participated to the extent of 75%, or an amount of $20,945.14.

The exploration work resulted in the discovery or development of uranium ore on which it was recommended by our memorandum to you of November 7, 1955, that a certification be issued.

E. N. Harshman
Acting Executive Officer

Enclosures

Doc. Final Report

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

DMEA
Date Rec'd.
RECEIVED
DEC 19 1955
AUG 22 1955
BUREAU OF MINES
Denver, Colorado

August 18, 1955

Memorandum

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

From: Stephen R. Wilson

Subject: Docket No. DMEA-3620 (Uranium), Contract Idm-E792, Uranium Prospectors Co., Ltd., Emery County, Utah

Enclosed are five copies of a final engineering and geologic report submitted by the subject contractor. The report covers all work completed under the contract through July 1955. Also included are four copies of a letter pertaining to errors appearing in the operator's report.

It is recommended that the report be accepted as fulfilling Article 7(c) of the contract form.

Stephen R. Wilson
Stephen R. Wilson

Enclosure

cc: J. B. Clemmer

RECEIVED
DEC 19 1955

August 4, 1955

DMEA
Date Rec'd.
AUG 22 1955
BUREAU OF MINES
Denver, Colorado

Mr. S. R. Wilson
Supervising Mining Engineer
U.S. Bureau of Mines
1600 East First South Street
Salt Lake City 1, Utah

Re: Docket No. DMEA 3620
Contract Idm-E792

Dear Mr. Wilson

In our haste to complete and submit our final engineering and geologic report under subject contract, we overlooked two errors which appear on page 12, EXHIBIT 'B', SUMMARY.

Should read as follows:

SUMMARY

Total Costs Stage I	$19,392.55	
Total Costs Stage II	8,550.50	
Total Cost of Project		$27,943.05
Government Participation @ 75%		20,957.30

Please attch copies of this letter to the five reports mailed to you on August 3rd.

We sincerely hope this oversight on our part causes you no inconvenience.

Very truly yours,

URANIUM PROSPECTORS CO., LTD.

D. C. Deringer

cc: Orig. & 4

RECEIVED
DEC 19 1975

August 3, 1955

Mr. Steven R. Wilson
Supervising Mining Engineer
U.S. Bureau of Mines
1600 East First South Street
Salt Lake City 1, Utah

Re: Docket No. DMEA 3620
Contract Idm-E792

Dear Mr. Wilson:

As directed in your letter of July 26th, we enclose herewith five copies of our final engineering and geologic report under the subject contract.

We wish to express our appreciation to you and your staff for the cooperation rendered us during this project.

Very truly yours,

URANIUM PROSPECTORS CO., LTD.

D. C. Deringer

cc: Hasler w/report
Traver (ltr)

RECEIVED
DEC 19 1955

DMEA
Date Rec'd.
AUG 22 1955
BUREAU OF MINES
Denver, Colorado

FINAL REPORT

Docket No. DMEA 3620

EXPLORATION PROJECT CONTRACT Idm-E792

URANIUM PROSPECTORS COMPANY, LTD.

by

James E. Morgan Jr.

July, 1955

RECEIVED
DEC 19 1956

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Ore Habit.....7

Ore Reserves.....7

Evaluation of Drilling Results.....8

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Geologic and Assay Logs Holes A-1 through
A-15, B-1 through B-4, and B-7 through B-10....In Pocket

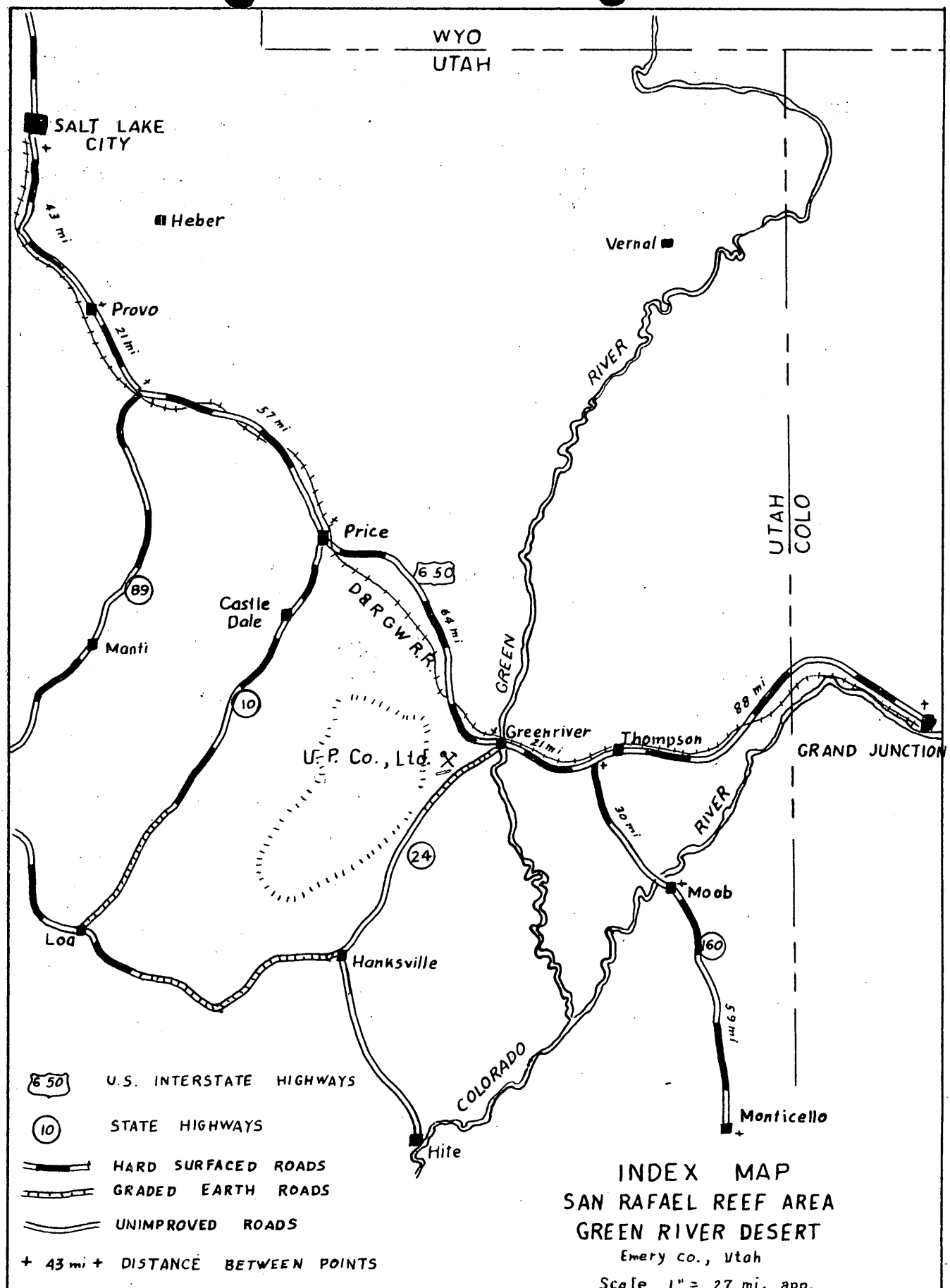

WYO
UTAH
SALT LAKE CITY
Heber
43 mi
Provo
21 mi
57 mi
Price
Vernal
RIVER
UTAH
COLO
650
64 mi
D&RGW R.R.
GREEN
89
Manti
Castle Dale
10
U.P. Co., Ltd.
Greenriver
21 mi
Thompson
88 mi
GRAND JUNCTION
30 mi
RIVER
24
Moab
160
59 mi
Loa
Hanksville
COLORADO
Hite
Monticello
650 U.S. INTERSTATE HIGHWAYS
10 STATE HIGHWAYS
HARD SURFACED ROADS
GRADED EARTH ROADS
UNIMPROVED ROADS
+ 43 mi + DISTANCE BETWEEN POINTS
INDEX MAP
SAN RAFAEL REEF AREA
GREEN RIVER DESERT
Emery Co., Utah
Scale 1" = 27 mi. app.

Figure 1

RECEIVED
DEC 19 1955

ABSTRACT

Work under DMEA Contract Idm-E792 on the Dede, Simon J. and Pee Wee Claim Group in the San Rafael Reef, Utah area was started by the Uranium Prospectors Company, Ltd. on May 17, 1955 and completed July 19, 1955. Fifteen core holes and eight non-core holes aggregating 1,586 feet of core and 9,131 feet of non-core were drilled for a total project cost of $27,943.05. Ten of the holes disclosed uranium mineral of ore grade and thickness and eight cut uranium mineralization. Total ore reserves developed by the drilling are 6,725 tons of indicated and inferred ore having an average grade of 0.22% U_3O_8. One deposit calculated to contain 6,185 tons of indicated and inferred ore with an average grade of 0.22% U_3O_8 is valued at $110,711.50 in place. Mining of the latter deposit through the Company's shaft on the adjacent Jack Rabbit Claim Group is economically feasible.

INTRODUCTION

On May 6, 1955 the Uranium Prospectors Company, Ltd. entered into Contract Idm-E792, Docket D.M.E.A. 3620 with the Defense Minerals Exploration Administration for the purpose of exploration and development drilling on the Dede, Simon J and Pee Wee Claim Group. The Dede, Simon J and Pee Wee Claim Group is situated on the east flank of the San Rafael Swell approximately 15 miles southwest of Green River, Utah, in sections 15 and 22, T. 21 S., R. 14 E., S. L. M. (Fig. 1). Work under the contract began May 17, 1955 and was completed July 19, 1955.

The object of this project was the discovery and delineation of uranium ore bodies in the Salt Wash member of the Jurassic Morrison formation. With this objective in mind, the drilling was conducted in two successive stages. Stage I drilling consisted of 15 widely spaced core holes the purpose of which was to discover uranium ore and develop geologic criteria. Stage II drilling consisted of eight non-core holes the purpose of which was to delineate uranium ore bodies indicated previously by the Stage I drilling. This report summarizes and evaluates the results of the work performed under the contract.

SUMMARY OF WORK PERFORMED

STAGE I

Work under Stage I of the project consisted of bulldozing approximately 2,000 feet of access road, leveling 17 drill sites, and drilling 15 core holes (Fig.2). Each hole was drilled non-core from the surface to the projected contact of Brushy Basin and Salt Wash members of the Morrison formation and cored from that point to the bottom of the hole. Holes A-1 and A-15 were cored to the base of the Salt Wash member. The remainder of the Stage I holes were cored either to the base of the ore bearing sandstone or to a minimum of 70 feet below the upper Salt Wash contact, which ever was greater.

The contract provided for the drilling of 17 Stage I holes. However, near the end of the Stage I drilling, the operator decided it would be more advantageous to transfer the drilling funds allotted for two of the Stage I holes to Stage II drilling funds to permit additional development drilling around previously drilled Stage I ore holes. It was discovered later, however, that such a transfer of funds could not be effected without considerable delay, and the drill funds allotted for these two holes were never utilized.

An aggregate of 7,088 feet of drilling was done under Stage I of the contract. Of this total 5,502 feet were non-core and 1,586 feet were core drilling. Total Stage I costs were $19,392.55. Reference is made to EXHIBIT 'A' for a tabulation of drill footages, and to EXHIBIT 'B' for a detailed summary of costs incurred under Stage I.

STAGE II

Work under Stage II of the contract consisted of bulldozing approximately 100 feet of access road, leveling eight drill sites, and drilling eight non-core holes.

Despite the fact that large quantities of water were encountered at relatively shallow depths, it was possible to drill all of the Stage II holes with air. It was believed that more reliable cuttings samples would be obtained by this method than by use of water or mud as a drilling medium. The large amount of water coming from the drill hole, of course, precluded the use of a dust collector, and samples were collected at the collar of the hole in buckets. One-foot samples were taken for a distance of 15 feet through the ore horizon,

two-foot samples were taken for 10 feet above and below the ore horizon, and five-foot samples were taken through the remaining portion of the hole within the Salt Wash member. A close check of the cuttings sampled indicated that they were fairly reliable for lithological determinations, but that they were not at all satisfactory for assaying purposes. Consequently, all assays from Stage II drill holes were obtained by means of radiometric probe.

An aggregate of 3,629 feet of drilling was performed under Stage II of the contract. Total Stage II costs were $8,550.50. A tabulation of Stage II drill footages is given in EXHIBIT 'A', and a detailed summary of Stage II costs incurred is given in EXHIBIT 'B'.

GEOLOGY

STRATIGRAPHY

The Dede, Simon J and Pee Wee Claim Group is situated on the east flank of the San Rafael Swell in an area of moderately dipping sedimentary formations that are exposed in the age range from Permian to upper Cretaceous. This report, however, is generally concerned only with the Jurresic Morrison formation, and in particular with the ore bearing Salt Wash sandstone member.

The Brushy Basin member attains an estimated maximum thickness of 450 feet in the eastern portion of the claim group. Erosion has removed much of this member in the western portion of the group, however, and drilling depths to the Brushy Basin-Salt Wash contact approximate 175 feet. The Brushy Basin consists predominately of blue-green and red variegated clays interbedded with subordinate lenticular sandstone conglamerates and thin cherty limestones.

The Brushy Basin-Salt Wash contact is frequently gradational and poorly defined in this area. In the core holes drilled on this project the contact was placed at that point in the section where the first thick massive sandstone became fine to medium grained, relatively porous appearing,

and white to light gray in color. Drill holes A-1 and A-15, both of which penetrated the base of the Salt Wash sandstone, indicate an average thickness of 216 feet for the Salt Wash within the drilling area.

All of the uranium mineral discovered on this project and on adjoining properties is confined to the uppermost sandstone unit of the Salt Wash member. This unit which varies in thickness from 27 to 92 feet is referred to here as the ore bearing sandstone. The average thickness of the ore bearing sandstone in these holes which penetrated uranium mineralization is approximately 50 feet. Local thickening of the sandstone apparently has little or no control over the localization of uranium deposition. The upper portion of the ore bearing sandstone is characterized by a persistent 11 to 30 foot thick sand pebble conglomerate containing angular to subangular and subrounded pebbles up to 1/2 inch in diameter. Unidentified, hard, angular, bleached-appearing pebbles are common throughout the conglomerate. That portion of the ore bearing sandstone which lies below the conglomerate is predominately white to light gray, fine to very fine grained and relatively silt free. Although green and gray mudstone pebbles are very common throughout the ore bearing sandstone in the area drilled, mudstone lenses are conspicuously absent. It is suggested that the sandstone would be lithologically more favorable for ore deposition if there were more mudstone present.

The lower 120 to 190 feet of the Salt Wash consists predominately of red and green mudstone and siltstone interbedded with subordinate relatively thin beds of white to light gray, fine to very fine grained, frequently limy sandstone. The lower 15 to 20 feet of the member is characterized by abundant dirty fibrous gypsum nodules which grade into a persistent bed of massive white to orange or pink bed of gypsum at the base. In general that portion of the Salt Wash sandstone below the uppermost sandstone unit is unfavorable for the occurrence of uranium deposits in this area.

STRUCTURE

Strata within the area strike approximately N 15° E. Dip of the strata varies from approximately eight degrees on the

GEOLOGY, Structure (Continued)

Salt Wash outcrop west of the Claim Group to six degrees near the east edge of the area drilled. Faults and major fractures strike approximately S 40° E.

ORE HABIT

Uranium mineralization in the area appears to occur in three distinct horizons with reference to the upper Salt Wash contact. The upper most horizon lies directly below the contact and in or above the sand pebble conglomerate described above. The middle horizon is approximately 30 to 40 feet below the contact. It is this horizon which contains most of the ore discovered to date on the Dede, Simon J and Pee Wee Claim Group. The lower horizon lies approximately 50 to 60 feet below the contact. It is reported that the bulk of Four Corners uranium production has come from the latter horizon. Elongated deposits in the area, which have been well delineated, exhibit a predominate northeast trend. Preliminary drilling on the Dede, Simon J and Pee Wee Claim Group has indicated a northeast trend of mineralization, but a sufficient amount of closely spaced drilling has not been accomplished to definitely establish this fact.

The mineralogy of the uranium minerals has not been determined at this writing. It has been established, however, that the higher grade ore is nearly always associated with seams of a vitreous asphaltic material which gives off a pungent odor when burned. Occasionally, megascapically invisible uranium minerals disseminated throughout the sandstone adjacent to carbonaceous material may be detected with a geiger counter. Lime content in samples assayed ranges from 0.2% to 20.6% and appears to vary inversely with the uranium content. No determinations were made for vanadium, but the operator has learned from past experience in the area that the vanadium content is negligible.

ORE RESERVES

The criteria for calculation of ore reserves developed by drilling under this contract have been adapted from those established for Salt Wash deposits in the Green River district by the U.S. Atomic Energy Commission Grand Junction Exploration Branch Ore Reserves Section. For the calculation of indicated ore an area of influence having a 15 foot radius was assumed around each ore hole. If there is a mineralized

ORE RESERVES (continued)

hole located approximately 100 feet, or less, from a given ore hole, the area of influence was extended 7.5 feet in the direction of the mineralized hole. Inferred ore was projected not more than 100 feet between adjacent ore holes. Inferred ore grade and thickness were determined by weighting of indicated grade and thickness, around ore holes ~~of~~ at the extremeties of inferred blocks.

A summary of ore reserves is given below. Assay data, ore reserve calculations, and planimetric ore reserve maps are given in EXHIBIT 'C'.

SUMMARY OF ORE RESERVES

Block	Indicated			Inferred			Total		
	Tons	%U_3O_8	Th.	Tons	% U_3O_8	Th.	Tons	%U_3O_8	Th.
A	1,510	0.22	4.8'	4,675	0.23	4.4'	6,185	0.22	4.5'
B	130	0.21	1.2'	260	0.21	1.2'	390	0.21	1.2'
Hole A-1	50	0.22	1.0'				50	0.22	1.0'
Hole A-10	50	0.24	1.0'				50	0.24	1.0'
Hole A-12	50	0.31	1.0'				50	0.31	1.0'
Total	1,790	0.23		4,935	0.23		6,725	0.22	

EVALUATION OF DRILLING RESULTS

Of the 23 holesdrilled on the Dede, Simon J and Pee Wee Claim Group under contract Idm-E792 ten holes disclosed uranium mineral of ore grade and thickness (at least one foot of 0.10% U_3O_8 or the equivalent in feet-percent), and eight holes cut uranium mineralization. Five of the ore holes are grouped at 100-foot intervals around Hole RR-4 which was drilled by the operator prior to the contract (Fig. 2). These six holes indicate an ore body calculated to contain 6,185 tons of indicated and inferred ore having an average grade 0.22% U_3O_8 and an average thickness of 4.5 feet. (See EXHIBIT 'C' - Ore Reserve Calculations, Block A).

EVALUATION OF DRILLING RESULTS (continued)

The ore reserves in Block A are believed to be of sufficient tonnage, grade and thickness to be mined at a profit. Four offset holes were also drilled at 100-foot intervals around ore Hole A-3 (Fig. 2). The radiometric probe indicates that one of these holes penetrated 1.3 feet of 0.10% U_3O_{8e}, and that the remaining three holes cut only weak uranium mineralization. Three hundred ninety tons of indicated and inferred ore with an average grade of 0.21% U_3O_8 and an average thickness of 1.2 feet have been calculated for this block (see EXHIBIT 'C' - Ore Reserve Calculations - Block B). The limited tonnage, grade, and thickness of ore calculated for block B does not, under the conditions, indicate an ore body which can be mined at a profit. Holes A-1, A-10, and A-13 cut uranium mineral of ore-grade one foot or less in thickness. No offset drilling was done around the latter holes and at this writing they are considered to be indicative of potentially productive areas, but of little or no immediate economic significance.

The value of the calculated ore in place in Block A is $110,711.50. The initial production bonus is purposely not included in this figure as the status of the bonus on this Claim Group has not as yet been defined. The minimum depth to which a shaft collared in the immediate vicinity of Block A would have to be sunk is approximately 400 feet, and the inferred value of the deposit does not at this time warrant the required expenditure for such a project. The Company, however, believes that it would be feasible to mine the deposit through its shaft situated on the Jack Rabbit Claim Group approximately 1,450 feet to the southwest of Block A (Fig. 2). The potentially productive area between Block A and the Jack Rabbit shaft is as yet untested, and if additional reserves can be developed in this area, either by underground exploration or drilling, there is little doubt but that Block A can be mined through the Jack Rabbit shaft at a reasonable profit.

James C. Morgan, Jr.

EXHIBIT 'A'

TABULATION OF FOOTAGE DRILLED
STAGE I

Hole No.	Non-core 0-300	Non-core 300-600	Core	Total Depth
A-1	165		232	397
A-2	300	5	81	386
A-3	300	30	90	420
A-4	300	130	70	500
A-5*			46	
A-5a	300	100	45	491
A-6	300	100	89	489
A-7	300	107	87	494
A-8	300	145	70	515
A-9	300	90	74	464
A-10	300	145	70	515
A-11	285		127	412
A-12	300	100	74	474
A-13	300	110	93	503
A-14	285		87	372
A-15	300	105	251	656
Total	4,335	1,167	1,586	7,088

*Hole lost after 46 feet was cored. Drill rig moved 8 feet to drill site A-5a, Hole A-5a cored from depth 4 feet above bottom of last core run in hole A-5.

STAGE II

Hole No.	Non-core 0-300	Non-core 300-600	Core	Total Depth
B-1	300	202		502
B-2	300	200		500
B-3	300	182		482
B-4	300	189		489
B-7	300	111		411
B-8	300	115		415
B-9	300	116		416
B-10	300	114		414
Total	2,400	1,229		3,629

EXHIBIT 'B'

TABULATION OF COSTS INCURRED

Actual Costs

STAGE I

Category (1)	Independent Contracts		
	4,335 feet of non-core drilling @ $1.50 / ft.	$6,502.50	
	1,167 feet of non-core drilling @ $1.75 / ft.	2,042.25	
	1,586 feet of Core Drilling @ $3.30 / ft.	5,233.80	
	9 hours of bulldozing access roads @ $12/hr.	108.00	
	8 hours 20 minutes leveling 17 drill sites with bulldozer @ $12/hr.	100.00	
			$13,986.55

STAGE II

Category (1)	Independent Contracts		
	2,400 feet of non-core drilling @ $1.50 / ft.	$3,600.00	
	1,229 feet of non-core drilling @ $1.75 / ft.	2,150.75	
	1 ½ hours of bulldozing access roads @ $12/hr.	18.00	
	5 hours leveling 8 drill sites with bulldozer @ $12/hr.	60.00	
			$ 5,828.75

EXHIBIT 'B' (continued)

Fixed Unit Costs

STAGE I

18 chemical analysis for U_3O_8 and $CaCO_3$ @ $15/ea.?	$ 90.00	
Incidental allowance for each foot of drilling completed - 7,088 feet @ $0.75 / ft.	5,316.00	
		$5,406.00

STAGE II

Incidental allowance for each foot of drilling completed - 3,629 feet @ $0.75 / ft.	2,721.75	
		$2,721.75

SUMMARY

Total Costs Stage I	$19,292.55	
Total Costs Stage II	8,550.50	
Total Cost of Project		$27,943.05
Government Participation @ 75%		$24,556.90

EXHIBIT 'C'

ORE RESERVE CALCULATION DATA

BLOCK A

Drill Hole Data

Hole No.	Interval	Assay	Thickness	Percent U_3O_8
RR-4	458.0-458.8	0.53%e	6.0	0.26
	462.8-464.0	0.83%e		
A-5	443.8-444.1	0.96%	3.0	0.18
	444.9-445.2	0.82%		
A-5a	440.3-441.6	0.21%e	7.6	0.23
	444.1-444.8	1.85%		
	447.6-447.9	0.07%		
A-6	446.0-447.1	0.18%	1.1	0.18
A-8	476.0-478.2	0.25%	2.2	0.25
B-1	473.7-476.9	0.22%e	3.2	0.22
B-3	446.0-451.5	0.18%e	5.5	0.18

Indicated Ore

Hole RR-4 6.0' @ 0.26%

$$\frac{32 \times 6.0 \times 30}{14} = \frac{5{,}760 \text{ cu.ft.}}{14} = 410 \text{ tons}$$

Hole A-5 3.0' @ 0.18%
Hole A-5a 7.6 @ 0.23%
Avg. 5.3 0.22%

$$\frac{32 \times 5.3 \times 35}{14} = \frac{5{,}936 \text{ cu. ft.}}{14} = 420 \text{ tons}$$

Hole A-6 1.1' @ 0.18%

$$\frac{32 \times 1.1 \times 20}{14} = \frac{704 \text{ cu. ft.}}{14} = 50 \text{ Tons}$$

Hole A-8 2.2' @ 0.25%

$$\frac{32 \times 2.2 \times 20}{14} = \frac{2{,}198 \text{ cu. ft.}}{14} = 160 \text{ tons}$$

Hole B-1 3.2' @ 0.22%

$$\frac{706.8 \times 3.2}{14} = \frac{2{,}262 \text{ cu. ft.}}{14} = 160 \text{ tons}$$

Hole B-3 5.5' @ 0.18 %

$$\frac{32 \times 5.5 \times 25}{14} = \frac{4{,}400 \text{ cu. ft.}}{14} = 310 \text{ tons}$$

Inferred Ore

block a
Hole A-6 1.1' @ 0.18%
Hole RR-4 6.0' @ 0.26%
Avg. 3.6' 0.25%

$$\frac{32 \times 3.6 \times 99}{14} = \frac{11{,}405 \text{ cu.ft.}}{14} = 810 \text{ tons}$$

block b
Hole RR-4 6.0' @ 0.26%
Hole A-8 2.2' @ 0.25%
Hole A-5 3.0' @ 0.18%
Hole A-5a 7.6' @ 0.23%
Avg. 4.7' 0.23%

$$\frac{32 \times 4.7 \times 209}{14} = \frac{31{,}434 \text{ cu.ft.}}{14} = 2{,}245 \text{ tons}$$

Inferred Ore (continued)

block c

Hole A-8	2.2'	@ 0.25%
Hole B-1	3.2	@ 0.22%
Avg.	2.7	0.22%

$$\frac{32 \times 2.7 \times 86}{14} = \frac{7,430 \text{ cu. ft.}}{14} = 530 \text{ tons}$$

block d

Hole A-5	3.0'	@ 0.18%
Hole A-5a	7.6'	@ 0.23%
Hole B-3	5.5'	@ 0.20%
Avg.	5.4'	0.20%

$$\frac{32 \times 5.4 \times 88}{14} = \frac{15,206}{14} = 1,090 \text{ tons}$$

BLOCK 2

Drill Hole Data

Hole No.	Interval	Assay	Thickness	Per cent U_3O_8
A-3	378.8-379.9	0.33%	1.1'	0.33%
B-7	376.6-377.9	0.10%	1.3'	0.10%

Indicated Ore

Hole A-3

1.1' @ 0.33%

$$\frac{32 \times 1.1 \times 29}{14} = \frac{1,020 \text{ cu. ft.}}{14} = 70 \text{ tons}$$

Hole B-7

1.3' @ 0.10%e

$$\frac{706.8 \times 1.3}{14} = \frac{919 \text{ cu. ft.}}{14} = 60 \text{ tons}$$

Inferred Ore

Hole A-3	1.1'	@ 0.33%
Hole B-7	1.3'	@ 0.10%e
Avg.	1.2	0.21%

$$\frac{32 \times 1.2 \times 96}{14} = \frac{3,686 \text{ cu. ft.}}{14} = 260 \text{ tons}$$

INDICATED ORE ISOLATED ORE HOLES

Drill Hole Data

Hole No.	Interval	Assay	Thickness	Per cent U_3O_8
A-1	210.8-211.8	0.22%	1.0'	0.22%
A-10	467.4-467.5	2.37%	1.0'	0.24%
A-12	449.3-449.4	3.10%	1.0'	0.31%

Hole A-1 15.0' radius = 50 tons
Hole A-10 15.0' radius = 50 tons
Hole A-12 15.0' radius = 50 tons

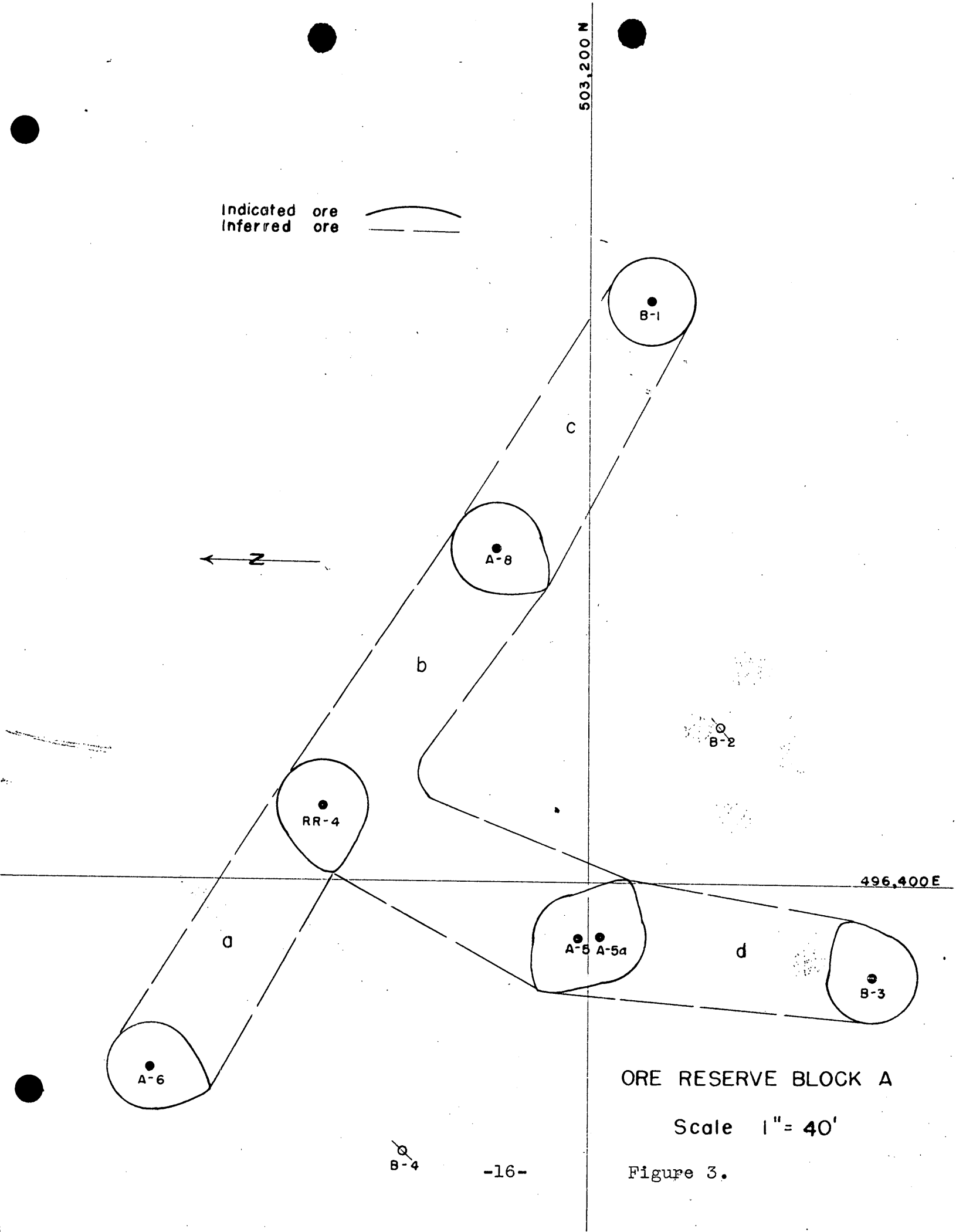
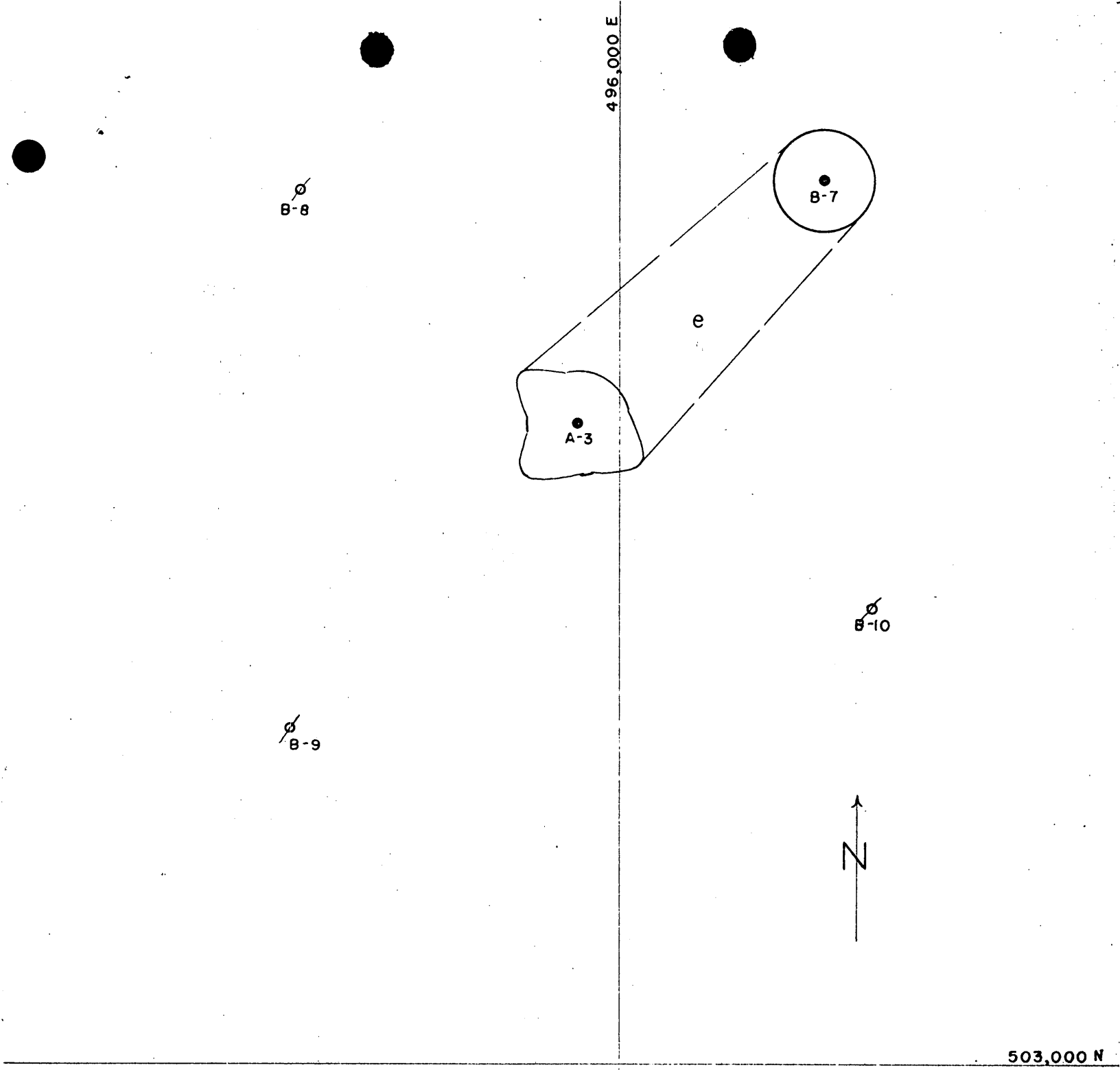

503,200 N
Indicated ore
Inferred ore
B-1
c
A-8
N
b
B-2
RR-4
496,400 E
a
A-5
A-5a
d
B-3
A-6
ORE RESERVE BLOCK A
Scale 1" = 40'
B-4

Figure 3.



ORE RESERVE BLOCK B

Scale 1" = 40'

Figure 4.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

MINERAL DEPOSITS
DMEA
RECEIVED
DEC 9 1955

U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
DEC 19 1955

DEC 12 1955
BUREAU OF MINES
Denver, Colorado

December 6, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. N. Harshman

From: Stephen R. Wilson
J. William Hasler

Subject: Docket No. DMEA-3620 (Uranium), Contract Idm-E792, Uranium Prospectors Co., Ltd., Dede, Pee Wee and Simon J. claims, Emery County, Utah

Enclosed are the original and 10 copies of a joint final engineering and geologic report covering all exploration completed under the subject contract. The report was prepared by W. E. Young and D. D. Haynes.

The project resulted in discovery of indicated and inferred ore reserves totaling 3,926 tons, with an average assay value of 0.31 percent U_3O_8. A certification of discovery or development has been recommended.

F.T. Final Report.

Stephen R. Wilson
Stephen R. Wilson
Bureau of Mines

J. William Hasler
J. William Hasler
Geological Survey

Enclosure

cc: J. B. Clemmer

Reviewed by
DMEA OPERATING COMMITTEE
12-23-55
(date)

RECEIVED
DEC 19 1955

URANIUM PROSPECTORS CO., LTD.
DEDE, PEE WEE AND SIMON J. CLAIMS
EMERY COUNTY, UTAH
DMEA-3620
Idm-E792
Uranium

Final Engineering and Geologic Report

By W. E. Young
Mining Engineer
Bureau of Mines

D. D. Haynes
Geologist
Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
12-23-55
(Date)

URANIUM PROSPECTORS CO., LTD.
DEDE, PEE WEE AND SIMON J. CLAIMS
EMERY COUNTY, UTAH

RECEIVED
DEC 19 1955

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Recommendations	3
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Geology and ore deposits	6
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Description of the exploratory work	13
Additional exploration possibilities	17
Conclusions	18

ILLUSTRATIONS

Fig. 1 Location map, Uranium Prospectors Co., Ltd., Emery County, Utah
Fig. 2 Map showing diamond drill holes and mining claims
Fig. 3 Plan illustrating ore reserve blocks A, B, C and D
Fig. 4 Plan illustrating ore reserve block E

SUMMARY AND INTRODUCTION

Uranium Prospectors Co., Ltd., Grand Junction, Colorado, applied for Government assistance in exploration on the Dede, Pee Wee and Simon J. uranium claims located on the east flank of the San Rafael Swell, Emery County, Utah. The property was examined by DMEA personnel during January 1955, and recommendation was made that the loan request be granted.

A contract was approved April 28, 1955, allowing an expenditure of $32,740.50. The work was planned to explore, by diamond drilling, the favorable beds of the Salt Wash member of the Morrison formation at an approximate depth of 450 feet below the surface. Stage I under the contract permits 85 hours of bulldozer operation in constructing access roads, drill sites and water reservoirs and 6,330 feet of noncore and 1,490 feet of core drilling in 17 holes. Stage II allows 10 hours of bulldozer operation for access roads and drill-site preparation, and 3,620 feet of noncore drilling in 8 holes. In addition to the above, Stage I includes 50 chemical analyses and an incidental allowance for each foot of completed drilling. Stage II also includes 10 chemical analyses and an incidental allowance for each foot of completed drill hole.

Contract work was started May 17, 1955, and completed July 19, 1955. A total of 10,713 feet of diamond drilling was completed in 23 holes. Expenditures totaled $27,926.85.

Reserves estimated as a result of the exploratory project total 3,926 tons of indicated and inferred ores with an average grade of 0.31 percent U_3O_8.

RECOMMENDATIONS

The exploratory drilling resulted in discovery of minable ore. The drilling also indicated that areas on the claims encumbered under the contract are favorably situated for discovery of additional ore bodies. Ore occurrences disclosed by the contract work are not completely delineated. Additional closer spaced drilling on these occurrences is warranted, but without DMEA assistance. Government participation in exploratory drilling on surrounding claims, however, is believed justified.

Recommendation has been made that a certification of discovery or development be issued on the Dede, Pee Wee and Simon J. claims, included under Contract Idm-E792.

LOCATION AND ACCESSIBILITY

The property is easily accessible from Green River, Utah (fig. 1). The area is reached by traveling 9-1/2 miles west from Green River on U. S. Highway 50, and thence south 7-1/2 miles on an unimproved dirt road. A uranium-purchasing station is located at Thompsons, Utah, 35 miles east of the property. Price, Utah, is approximately 50 miles northwest of the claims.

The topography in the vicinity of the claims is comprised of low, rolling hills and broad, flat benches, with one steep slope trending north-south on the eastern part of the claim group.

Flash floods occasionally make the area inaccessible for brief periods. All-year operations in the area are not excessively hampered by weather conditions, although the winter months often are characterized by low temperatures.

PROPERTY

Thirteen lode mining claims, known as the South Rowland group, are encumbered under the contract (fig. 2). The claims are located in Secs. 15 and 22, T. 21 S., R. 14 E., S.L.B. and M., Emery County, Utah, and are owned by David A. Rowland, Denver, Colorado, and Andrew G. McDermott, Green River, Utah. Uranium Prospectors Co., Ltd., holds a lease on the property for a period of 10 years. The lease is dated November 24, 1954, and is renewable.

The claims, recorded in the County Court House, Castle Dale, Utah, are as follows:

Claim	Book No.	Page No.
Dede No. 1	J-49	359
Dede No. 2	J-49	360
Dede No. 3	J-49	361
Dede No. 4	J-49	362
Dede No. 5	J-49	363
Dede No. 6	J-49	364
Dede No. 7	J-49	365
Dede No. 8	J-49	366

Claim	Book No.	Page No.
Pee Wee No. 1	J-49	367
Pee Wee No. 2	J-28	377
Pee Wee No. 3	J-60	81
Simon J. No. 1	J-49	369
Simon J. No. 2	J-49	370

Exploration under the contract was accomplished on the Dede Nos. 5, 6, 7 and 8 and Pee Wee No. 1. The ore occurrences discovered by the work are located on the Dede No. 8 claim.

HISTORY AND PRODUCTION

No uranium ore production was recorded from the South Rowland property prior to completion of the contract work. Five diamond drill holes, three of which encountered uranium mineralization, were drilled on company account before the effective date of the contract. During the contract period, the operator developed the adjoining Jack Rabbit property by sinking a 305-foot vertical shaft. This shaft was intended for exploitation of ores on the Jack Rabbit claims, discovered by company drilling.

The above-mentioned shaft may also be used in extracting ores from the South Rowland group. Additional drilling planned under a proposed DMEA contract on the Jack Rabbit claims may make mining ores from the South Rowland group more feasible.

The main shaft has been driven in competent rock and the company should have little difficulty in using the shaft for operation. Drifts

will be driven on the ore-bearing beds from the shaft. The beds dip approximately 6° easterly.

Artificial ventilation will be necessary in conducting mining operations through the shaft. Water is not a severe problem to date. A small amount of water is pumped from the shaft daily.

GEOLOGY AND ORE DEPOSITS

The Dede, Simon J. and Pee Wee claims, or South Rowland group, lie on the east flank of the San Rafael Swell in an area of moderately dipping sedimentary formations. The strata on the east side of the Swell, in the vicinity of the claims, strike N. 5° E., and dip from 7° on the west boundary of the claims to less than 5° on the east boundary. The resistant Salt Wash member of the Jurassic Morrison formation forms a cuesta with a wide, flat bench on the dip-slope side. Above this bench the Brushy Basin member of the Morrison formation and the Buckhorn conglomerate and Cedar Mountain shale of the Cedar Mountain group, of Cretaceous age, form steep slopes and rounded hills.

The rocks exposed in the vicinity of the claims range in age from the Morrison formation, of Jurassic age, to the Mancos shale of Cretaceous age. The Morrison formation is composed of the Salt Wash member and the overlying Brushy Basin member. The Salt Wash member consists of light gray to white fluvial conglomeratic sandstones and red and green mudstones, which in this area has a total thickness of approximately 215 feet, with the top 60 feet being

predominantly sandstone or conglomeratic sandstone. This top 60 feet of the Salt Wash is the uranium-bearing zone.

The Salt Wash member is overlain by the Brushy Basin member, which is about 300 feet thick and is composed of variegated red, green and white bentonitic shale and siltstone with occasional lenses of conglomeratic sandstone.

Stokes[1/] has discussed the section and recognizes at the top of the Brushy Basin a continuous cliff-forming conglomerate unit up to 300 feet thick, and above this, approximately 100 feet of Brushy Basin-like shale. He proposes the name Cedar Mountain group (Cretaceous (?)) for that part of the section, and calls the conglomerate unit the Buckhorn conglomerate, and the overlying shale unit the Cedar Mountain shale. The Cedar Mountain group is the probable equivalent of the Burro Canyon and Dakota formation elsewhere on the Plateau.

Overlying the Cedar Mountain shale is the Mancos shale of Cretaceous age. This unit is several thousand feet thick and is composed of dark gray marine shale with abundant gypsum seams, usually less than an inch thick.

1/ Stokes, W. L., Morrison and Related Deposits in and Adjacent to the Colorado Plateau: Geol. Soc. of America, Bull., 1944, vol. 55, pp. 951-992.

The oxidized deposits in the Salt Wash member of the Morrison formation, in the subject area, have been known since about 1904.[2/] The oxidized deposits contain 100 tons or less, with a few deposits containing 1,000 tons. About 1 year ago exploratory drilling was commenced down dip (east) from the oxidized deposits, and larger deposits (5,000 to 15,000 tons), containing the black, unoxidized ores, were discovered. Extensive exploration during the past year by the Four Corners Uranium Co., the Atomic Energy Commission, Uranium Prospectors Co., Ltd., Pacific Uranium Mines Co., and others, had discovered about eight deposits in the 5,000- to 15,000-ton range. The average grade of these deposits is approximately 0.30 percent U_3O_8.

Vanadium and uranium occur in lens-shaped deposits oriented parallel to bedding in the upper 60 feet of the Salt Wash member in the vicinity of the operator's claims. At the outcrop these deposits are oxidized, and the principal uranium mineral is carnotite. Down dip the deposits become less oxidized, and "black ores" containing low-valent vanadium minerals and coffinite are found. The vanadium-uranium ratio is about 2 to 1.

The vanadium-uranium deposits are associated with carbonaceous and asphaltic material in the rather massive sandstone unit at the top of the Salt Wash member. The ore appears to be localized predominantly in the finer grained sandstone, rather than in the coarse-grained

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2/ Part of this material was obtained from H. S. Johnson, Resource Appraisal Section, USGS, Colorado Plateau District, or from DMEA Docket 3767.

sandstone and conglomerate. This finer grained sandstone, along with the interstitial green and gray mudstone and mudstone pebbles and associated carbonaceous material, may have been a controlling factor in the localization of the ores.

The uranium-vanadium ores may occur in zones throughout the upper Salt Wash unit, but on the operator's claims they are found near the middle of the upper Salt Wash sandstone. This is probably due to the fact that the upper half of the Salt Wash ore-bearing unit consists of coarse sandstone and conglomeratic sandstone which may not be favorable for the occurrence of uranium deposition.

The deposits are elongate in a direction parallel to primary sedimentary features in the Salt Wash, and probably are clustered in a belt of favorable ground corresponding to an old braided stream. Sedimentary trends indicated by ripple marks, stream lineation, cross bedding, and orientation of logs, rolls and ore deposits suggest that the direction of paleostream flow in the ore-bearing unit was from north to N. 30° E. On the operator's claims this direction is inferred, from the apparent orientation of known deposits, to be about N. 30° E.

This paleostream appears to have occupied a channel that may have been as much as one-half mile to 1 mile wide. Within this larger channel there were many smaller channels that were continually shifting their courses. It is in these smaller channels that the ore bodies are localized.

The ore bodies of this area are small compared to some Salt Wash ore bodies. Some may be no larger than 25 feet in length and 10 feet wide, while others may be 75 to 100 feet long and 15 to 30 feet wide. The majority of the ore bodies already mined have been of the smaller type, containing from 100 to 300 tons of ore, but in the favorable areas or belts, the ore bodies occur in clusters to form an ore deposit of several thousand tons that can be mined profitably from one shaft or inclined drift.

There has been no production from the South Rowland claims to date, but Uranium Prospectors Co., Ltd., has sunk a shaft on the adjoining Jack Rabbit No. 2 claim and intends to mine the ore deposits on the South Rowland claims from this shaft.

Drilling on the adjoining Jack Rabbit claims (fig. 2), has disclosed two ore deposits, each containing approximately 5,000 to 10,000 tons of inferred ores averaging 0.30 percent U_3O_8.

Pacific Uranium Mines Co. property to the south of the Jack Rabbit claims contains an ore deposit of about 13,000 tons of indicated and inferred ore with an average grade of about 0.26 percent U_3O_8.

Four Corners Uranium Co. has seven inclines to the south and southwest of the South Rowland claims. The ore deposits mined through the inclines are known to contain approximately 16,000 tons of indicated ores averaging 0.34 percent U_3O_8, and approximately 35,000 tons of

inferred ores averaging 0.32 percent U_3O_8. Through June 1955, 10,000 tons of ores averaging 0.28 percent U_3O_8 was produced, with the major production during the past year.

ORE RESERVES

Ore reserves, estimated as a result of the completed project work, are based on criteria used by the Geological Survey. A mineralized zone is considered ore if the assay value is 0.10 percent U_3O_8 or 1.0 percent V_2O_5, 1 foot or more in thickness. For example, hole A-12 drilled under the contract intersected a mineralized zone 0.7 foot thick with a radiometric determination of 0.49 percent U_3O_8. This hole is therefore not considered to be an ore hole because of the thickness of the mineralized zone. In a given hole, if two ore-grade intervals are separated by a sub-ore-grade interval, 1 foot or more in thickness, the total thickness of the three intervals is not used as the ore thickness, even though the average assay value of the three intervals is greater than 0.10 percent U_3O_8. As an example, three continuous mineralized zones are cored in a hole; one zone 1 foot thick with an assay value of 0.25 percent U_3O_8; one zone 1.5 feet in thickness averaging 0.08 percent U_3O_8; and a third zone 2.0 feet thick with an average assay value of 0.30 percent U_3O_8. The middle zone is in excess of 1 foot in thickness, but, because it is non-ore grade, would not be included in the total thickness of the ore-grade interval, even though the average assay of the 4.5-foot interval is 0.21 percent U_3O_8.

In estimating indicated ore, an area of influence having a radius of 15 feet is assumed for each drill hole (figs. 3 and 4). The area of influence of a given ore hole, if the hole is within 100 feet of another ore hole or mineralized hole, is extended 7.5 feet in the direction of the ore or mineralized hole.

Inferred ore is projected no more than 110 feet between adjacent ore holes. The grade and thickness of the inferred ore are determined by weighing indicated grade and thickness of the ore holes in the reserve block. No reserves of measured ore have been estimated. A summary of the estimated ore reserves is shown in the tabulation below:

Indicated Ores

Hole No.	Tons	Percent U_3O_8
A-3	75	0.33
A-5a	99	0.30
A-6	68	0.18
A-8	142	0.24
B-1	86	0.13
B-3 (top layer)	94	0.17
B-3 (bottom layer)	346	0.18
B-7	82	0.10
RR-4	99	0.83
Total and average	1,091	0.26

Inferred Ores

Block or Hole No.	Tons	Percent U_3O_8
A	225	0.52
B	1,385	0.43
C	290	0.19
D	239	0.22
E	218	0.19
B-3 (bottom layer)	478	0.18
Total and average	2,835	0.33
Grand total and average	3,926	0.31

DESCRIPTION OF THE EXPLORATORY WORK

The exploratory project was proposed to search for uranium ores in favorable horizons in the Salt Wash member of the Morrison formation. Presence of uranium mineralization in the general area has been known since 1900. Production on adjacent claims to the west at the time of the field examination totaled approximately 550 tons per month. Most known ores in the area occur in small, podlike bodies, containing 10 to 2,000 tons of ore separated by areas of barren or slightly mineralized rock. At the time of field examination, the applicant was drilling portions of the claims encumbered under the contract. The drilling indicated a favorable area for additional exploration. The applicant's original proposal consisted of bulldozer work with core and noncore diamond drilling in two stages. The proposal included 780 feet of core drilling and 11,120 feet of noncore drilling in 26 holes.

The examining personnel recommended a revision of the applicant's proposals to include more cored sections through the upper mineralized portion of the Salt Wash member. Changes were also made in the locations of proposed holes to permit drilling no nearer than 100 feet from claim boundaries, and to test a smaller area. A contract was drawn to allow a two-stage project. Stage I includes 85 hours of bulldozer operation to construct access roads, drill sites and water reservoirs, and 6,330

feet of noncore and 1,490 feet of core drilling in 17 holes. Stage II permits 10 hours of bulldozer work for access roads and drill-site preparation, with 3,620 feet of noncore drilling in 8 holes. In addition to the above allowances, stage I includes 50 chemical analyses and an incidental allowance for each foot of completed drilling. Stage II also includes 10 chemical analyses and an incidental allowance for each foot of completed drill hole.

Work under the contract was started May 17, 1955, and completed July 19, 1955. Exploration completed under the two stages, with costs, is shown in the tabulation below:

Item	Unit	Unit Cost	Total Units	Total Costs
Bulldozer operation	hour	$12.00	23-5/6	$ 286.00
Core drilling	foot	3.30	1,582	5,220.60
Noncore drilling 0' - 300'	foot	1.50	6,735	10,102.50
Noncore drilling 300' - 650'	foot	1.75	2,396	4,193.00
Incidental allowance	foot	.75	10,713	8,034.75
Chemical analyses	sample	5.00	18	90.00
				$27,926.85

Fifteen holes were drilled under stage I and 8 holes under stage II (fig. 2). The operator elected to transfer the footage from two of the 17 holes allowed under stage I to stage II; thus only 15 holes were

drilled under the first stage. Eight holes were completed under stage II and the operator requested permission to drill four additional holes, but approval was not immediately granted and the operator deemed it inadvisable to retain the diamond drilling contractor on the property. The two holes from stage I drilling, proposed as offset holes under stage II, were therefore not drilled, and the contract work was stopped with completion of only 23 holes. A total of 9,131 feet of noncore drilling and 1,582 feet of core drilling was accomplished under the contract. A breakdown of core and noncore drilling in the 23 holes of stages I and II is shown in the table below:

	Stage I		
Hole No.	Noncore	Core	Total Depth
A-1	165	232	397
A-2	305	81	386
A-3	330	90	420
A-4	430	70	500
A-5	---	46	---
A-5(a)	400	41	487
A-6	400	89	489
A-7	407	87	494
A-8	445	70	515
A-9	390	74	464
A-10	445	70	515
A-11	285	127	412
A-12	400	74	474
A-13	410	93	503
A-14	285	87	372
A-15	405	251	656
Total	5,502	1,582	7,084

Stage II

Hole No.	Noncore	Core	Total Depth
B-1	502	---	502
B-2	500	---	500
B-3	482	---	482
B-4	489	---	489
B-7	411	---	411
B-8	415	---	415
B-9	416	---	416
B-10	414	---	414
Total	3,629	---	3,629

In addition to the drilling, work completed consisted of construction of 2,100 feet of access roads and preparation of drill sites. All holes were spaced at a minimum of 100 feet. Stage I holes were drilled with plug bits from the surface to the Brushy Basin-Salt Wash contact. Holes A-1 and A-15 were cored through the Salt Wash member and into the Summerville formation for better stratigraphic control in the drilling. All other stage I holes were cored through the upper Salt Wash sandstone. Mineralized sections of the core were analyzed for U_3O_8 and $CaCO_3$. All holes were probed radiometrically.

Seven of the 23 holes drilled encountered ore-grade mineralization, 9 showed below-ore-grade mineralization, and 7 were barren.

Actual project expenditures totaled $27,926.85, and Government participation, at 75 percent, amounted to $20,945.14. The costs reported by the operator for core drilling, part of the noncore drilling,

and bulldozer operation, are lower than the allowable costs in the contract; consequently, the total expenditure for the completed project work is less than permitted by contract.

ADDITIONAL EXPLORATION POSSIBILITIES

Uranium mineralization disclosed by exploration on this project and on adjoining properties is confined to the uppermost sandstone unit of the Salt Wash member of the Morrison formation.

Local thickening of the favorable sandstone apparently has little or no control over localization of uranium ore deposits in this area. The coarser grained sandstone and conglomerate in the upper half of the ore-bearing unit do not appear to be favorable for localization of ore deposits, probably because of the coarseness of the sandstone. Green and gray mudstone lenses, and seams in the ore-bearing unit, may have influenced mineralization.

A large area in the vicinity of the Dede, Pee Wee, and Simon J. claims may be considered favorable for discovery of ore bodies similar to those found to date. The area of most promise lies to the south of the Dede and Jack Rabbit claims. Most of this property is controlled by Pacific Uranium Mines Co. Government assistance in exploration has been requested under docket No. DMEA-3928.

If it is assumed that ore deposits in the area are confined to channels and that the stream flow was north to N. 30° E., property lying to the east of the Dede, Pee Wee, Simon J., and Jack Rabbit claims should

be considered favorable for uranium ore deposits. However, to the east, drilling depths will be increasingly greater because of the cover of Mancos shale and the easterly dip of the beds. The Salt Wash ore-bearing unit may lie approximately 750 feet below the surface. At this depth the ore bodies may not be sufficiently large to justify expenditures for drilling.

It appears feasible to await information derived from drilling proposed on the Jack Rabbit claims under docket No. DMEA-3767 and exploration on property of Pacific Uranium Mines Co. under docket No. DMEA-3928, prior to further exploration to the east. These data, together with experience gained from actual mining operations through the vertical shaft on the Jack Rabbit No. 2 claim, and through workings on Pacific Uranium Mines Co., may determine the economics of further exploration by drilling on property to the east of the Dede, Pee Wee, Simon J., and Jack Rabbit claims.

CONCLUSIONS

Exploration performed under Contract Idm-E792, Uranium Prospectors Co., Ltd., was successfully completed and resulted in disclosing reserves totaling 1,091 tons of indicated ores averaging 0.26 percent U_3O_8 and 2,835 tons of inferred ores with an average assay value of 0.33 percent U_3O_8. The project also resulted in additional geologic information on the Salt Wash member for planning other work in the area.

Considerable development work will be necessary to permit mining the ores found by the DMEA exploration. This work may consist of drilling calyx holes to the ore or drifting on the ore horizon toward the ore body from the recently completed vertical shaft on the adjoining Jack Rabbit property. A decision concerning the method of development may be contingent upon a drilling program proposed on intervening ground.

Recommendation has been made that a certification of discovery or development be issued on property encumbered under the contract.

The operator conducted the exploratory project in an efficient and capable manner. Over-all costs were lower than permitted by contract.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
March 13, 1959

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O. M. E.
RECEIVED MAR 16 1959

DATE	INITIALS	CODE
3/16	C	220
3/16		300
		700

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium) Contract Idm-E926
Pacific Uranium Mines Company, (Green River claims)
Emery County, Utah

Enclosed are the original and one copy of a final engineering and geologic report, submitted by the Operator, pertaining to work completed under the subject contract.

The report appears to be complete, except for geologic information; however, the geology of the area is covered in the joint final engineering report by the OME field examiners, the original and two copies of which were forwarded by memorandum of February 19, 1959. Under the circumstances, we recommend that the Operator's final report be accepted as complying with the requirements under Article 7(c) of the contract form.

The Field Team's final summary report will be forwarded when all matters prerequisite to closing the account have been resolved.

J. W. Townsend

J. W. Townsend

Enclosures

START

OPR'S FINAL REPORT

FINAL REPORT

DMEA 3928 GREEN RIVER , UTAH

CONTRACT IDM E 926

PACIFIC URANIUM MINES COMPANY

OME
DEPARTMENT OF THE INTERIOR
MAR 12 1959
REGION III
DENVER, COLORADO

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Drill Hole Location Map	

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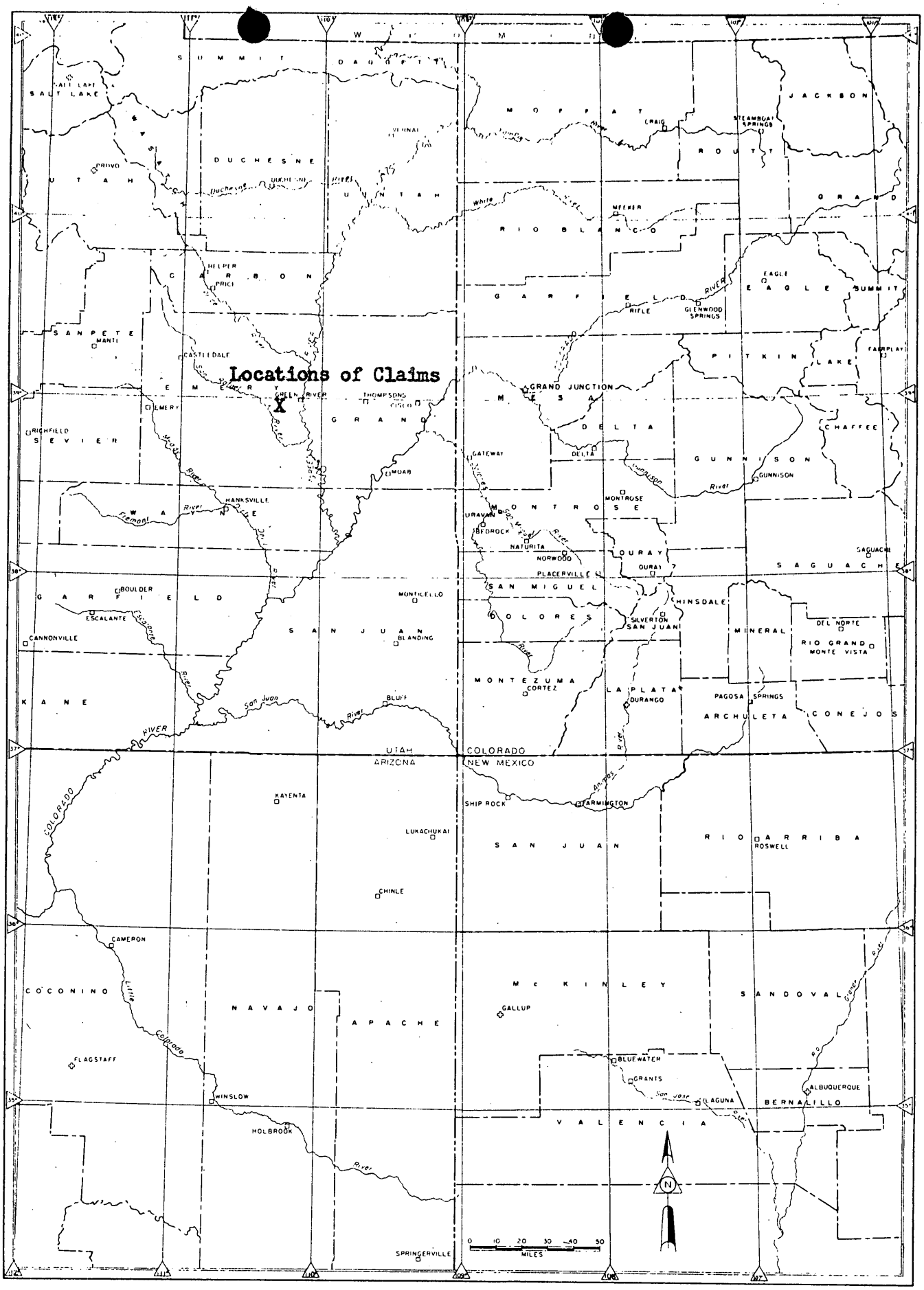


Figure 1 Colorado Plateau Location Map

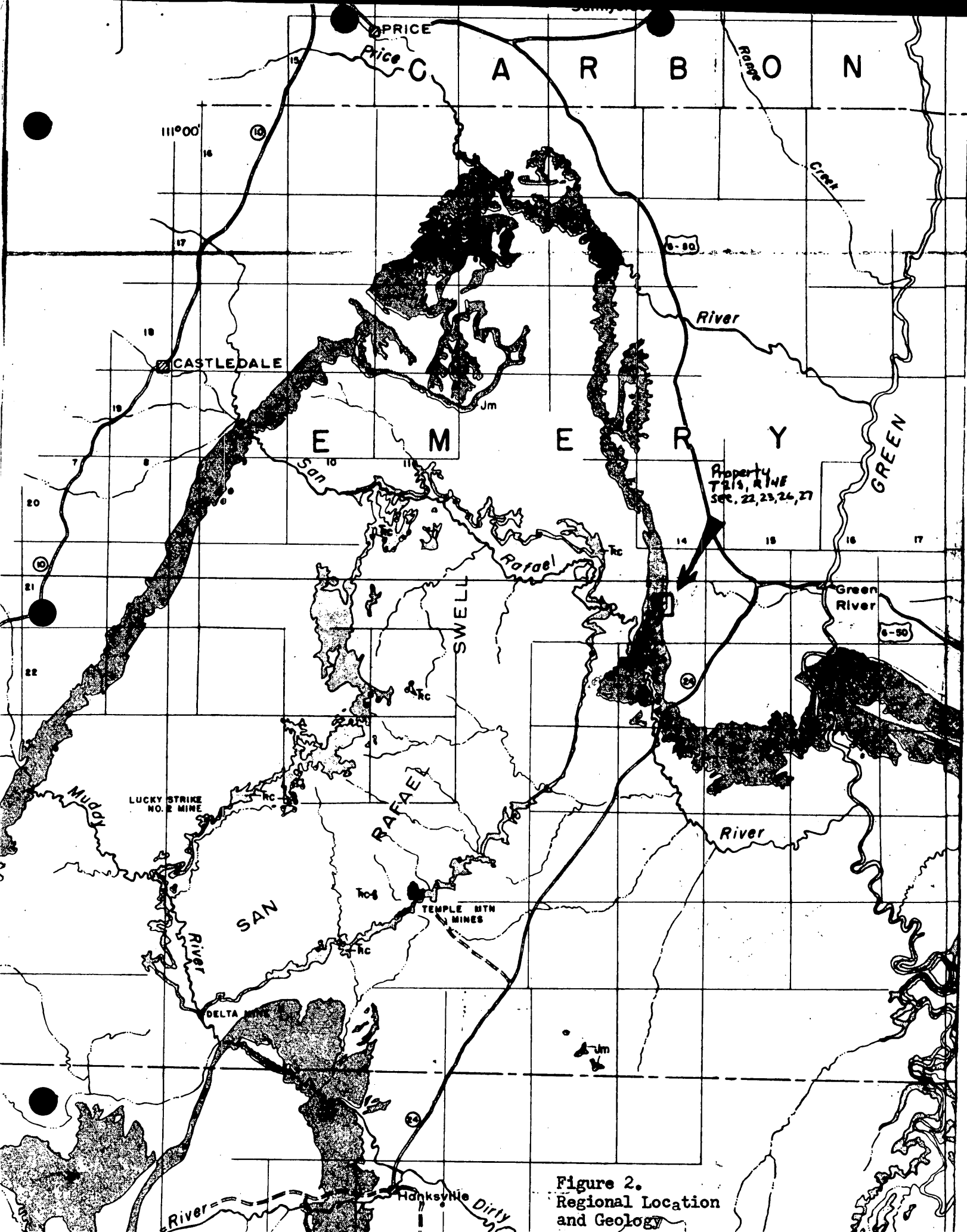


Figure 2.
Regional Location
and Geology

FINAL REPORT

DMEA 3928 GREEN RIVER , UTAH

CONTRACT IDM E 926

PACIFIC URANIUM MINES COMPANY

INTRODUCTION-LOCATION-ACCESSIBILITY

This report is primarily a brief resume' of and final report on the activities concerning Pacific Uranium Mines Co., and the DMEA loan drilling program which was started in the spring of 1956, in Emery county, Utah.

The claims that Pacific refers to as the Green River Claims (Red, Ajax, Wills, etc.) are located approximately 12 miles southwest of Green River, Utah. These claims lie on the Morrison formation, which extends in a more or less continuous belt around the flanks of the San Rafael Swell. The claims are accessible by an all weather road and year around mining operations can be maintained in this area.

HISTORY

The Green River Claims were staked during the summer of 1954 by Ray Wareham,et al, of Ferron, Utah. These claims were leased to Haile Mines Inc. who initiated a drilling program of 17 holes. The claims were then leased to Pacific Uranium Mines Co. Pacific drilled an additional 18 holes to further the work started by Haile Mines. Pacific's drilling program blocked out a continuous ore-body of 6000 tons of approximately 0.38 % U_3O_8 and indicated several areas of favorability. A decision was then made to obtain a DMEA loan to further exploration on the area. The results of this work are tabulated at the end of this report.

DMEA LOAN STAGE I DRILLING

Drilling of stage I commenced on April 10, 1956 and was completed on June 10, 1956. Thirty four holes were originally planned but only 31 holes were drilled. Five holes were classified as ore, 6 were mineralized, 9 were favorable and 11 were unfavorable. Total drilling on stage I was 9665 feet; 7444 feet being non-core and 2221 feet core. Total cost of stage I was $ 20,050.37.

Sufficient favorability was encountered in stage I drilling to warrent further exploration, in the northwest portion of the claims, by the stage II drilling program.

DMEA LOAN STAGE II DRILLING

Stage II drilling commenced on August 1, 1956 and was completed on August 29, 1956. In 25 working days 15 holes were drilled of which 2 were classified as ore holes, 2 as mineralized and 11 as favorable. Total drilling on stage II was 4654 feet; 3517 feet being non-core and 1137 feet core. The total cost of stage II drilling was $ 10,422.82.

ORE RESERVES

Ore reserves calculated by Pacific on Haile Mines and Pacific's original drilling program consisted of 6000 tons of approximately 0.38% U_3O_8. Several isolated ore holes were drilled but they did not have sufficient offsets nearby to justify ore reserve figures.

Stage I and II drilling encountered 7 ore holes but no further ore reserves were calculated by Pacific since these holes were not offset under the spacing allowed by stage I and II drilling.

FINAL PLANNING

Upon completion of stage I and II drilling Pacific proceeded to evaluate the work done to date. Due to heavy committments in other areas Pacific decided to lease the Green River property to some responsible mining company. After long negotiation with various companies a lease was signed with Union Carbide Nuclear Co. and the decision was left up to them as to whether or not they wished to continue with stage III of the DMEA drilling program. Union Carbide Nuclear studied all of the data carefully and decided not to continue with the DMEA drilling.

When Union Carbide assumed the lease Pacific submitted all available information to them and ceased to take an active part in further exploration on the Green River property.

Respectfully Submitted,

John H. Volgamore, Jr.

John H. Volgamore, Jr.
Geologist
Pacific Uranium Mines Co.

March 10, 1959

TABLE 2

ORE RESERVE CALCULATION SHEET

RADIOMETRIC

HOLE NO.	SAMPLE NO.	INTERVAL	THICKNESS	CHEMICAL ASSAY U_3O_8	CHEMICAL ASSAY V_2O_5	FOOT % U_3O_8	FOOT % V_2O_5	AREA	VOLUME	TONS	TOTAL $/TON	RESERVE DOLLARS
G-2		261-265	4.0	1.00		4.000						
										PROVEN VALUE		$244,338.00
G-6		239.7-240.2	0.5	0.19		.090						
		240.2-240.7	0.5	0.28		.140				INFERRED VALUE		292,416.60
		240.7-241.2	0.5	0.18		.090						
G-7		238.4-239.0	0.6	0.53		.318						
		239.0-239.5	0.5	0.43		.215						
		239.5-240.2	0.7	0.43		.301						
G-9		233.9-234.4	0.5	0.11		.055						
		234.4-234.9	0.5	0.11		.055						
		234.9-235.4	0.5	0.002		.001						
		235.4-235.9	0.5	0.17		.085						
		235.9-236.6	0.7	0.37		.259				PROVEN		
								33.600	84.672	6,048		
G-18		243.0-243.3	0.3	0.43		.129						
		243.3-247.0	3.7	0.40		1.480				INFERRED		
										7,560		
G-19		233.5-233.8	0.3	0.02		.006						
		233.8-234.4	0.6	0.43		.192				Bonus Ore		
		234.4-234.7	0.3	0.02		.006				1282		78,650.70
										Non Bonus		165,687.30
G-20		237.5-238.3	0.8	0.10		.080				4866		244,338.00
		238.3-239.0	0.7	0.13		.091						
		239.0-239.8	0.8	0.15		.120						
										Bonus		
								Inferred		1282		78,650.70
G-21		269.4270-.1	0.7	0.54		.378				Non Bonus		
		270.1-271.5	1.4	0.50		.700				6278		213,765.90
												292,416.60
G-25		238.5-239.3	0.8	0.08		.064						
		239.3-240.0	0.7	0.21		.147						
		240.0-241.0	1.0	0.38		.380						
G-26		240.0-240.9	0.9	0.18		.162						
		240.9-241.1	0.2	0.26		.052						
		241.1-242.1	1.0	0.02		.020						
		242.1-243.1	1.0	0.18		.180						
		Av. Thickness	2.52		Av. Grade	0.39 %						

Bonus 61.35
Non Bonus 34.05
7.80 lbs/ton

Fig. 3

ORE RESERVE CALCULATION SHEET

CHEMICAL

HOLE NO.	SAMPLE NO.	INTERVAL	THICKNESS	CHEMICAL ASSAY U_3O_8	CHEMICAL ASSAY V_2O_5	FOOT % U_3O_8	FOOT % V_2O_5	AREA	VOLUME	TONS	TOTAL $/TON	RESERVE DOLLARS
G-2		261-265	4.0	Rad 0.28		1.120						
										PROVEN VALUE		$ 160,496.00
G-6		239.7-240.2	0.5	0.19		.095						
		240.2-240.7	0.5	0.28		.140				INFERRED VALUE		191,870.00
		240.7-241.2	0.5	0.18		.090						
										PROVEN		
G-7		238.4-239.0	0.6	0.53		.318		33,600	84,672	6,048		
		239.0-239.5	0.5	0.43		.215				INFERRED		
		239.5-240.2	0.7	0.43		.301				7,560		
G-9		233.9-234.4	0.5	0.11		.055						
		234.4-234.9	0.5	0.11		.055				Bonus		
		234.9-235.4	0.5	0.002		.001		PROVEN		2,000		76,500.000
		235.4-235.9	0.5	0.17		.085				Non Bonus		
		235.9-236.6	0.7	0.37		.259				4,048		83,996.00
												160,496.00
G-18		243.0-243.3	0.3	0.43		.129						
Core Loss		243.3-247.0	3.7	Rad 0.28		1.036						
										Bonus		76,500.00
G-19		233.5-233.8	0.3	0.02		.006				2,000		
		233.8-234.4	0.6	0.32		.192		INFERRED		Non Bonus		115,370.00
		234.4-234.7	0.3	0.02		.006				5,560		191,870.00
G-20		237.5-238.3	0.8	0.10		.080						
		238.3-239.0	0.7	0.13		.091						
		239.0-239.8	0.8	0.15		.120						
G-21		269.4-270.1	0.7	0.54		.378						
		270.1-271.5	1.4	Rad 0.28		.392						
G-25		238.5-239.3	0.8	0.08		.064						
		239.3-240.0	0.7	0.21		.147						
		240.0-241.0	1.0	0.38		.380						
G-26		240.0-240.9	0.9	0.18		.162						
		240.9-241.1	0.2	0.26		.052						
		241.1-242.1	1.0	0.02		.020						
		242.1-243.1	1.0	0.18		.180						
		Weighted Average :	2.5	0.25		6.169						

Bonus 38.25
Non Bonus 20.75
5.00 lbs/ton

Fig. 4

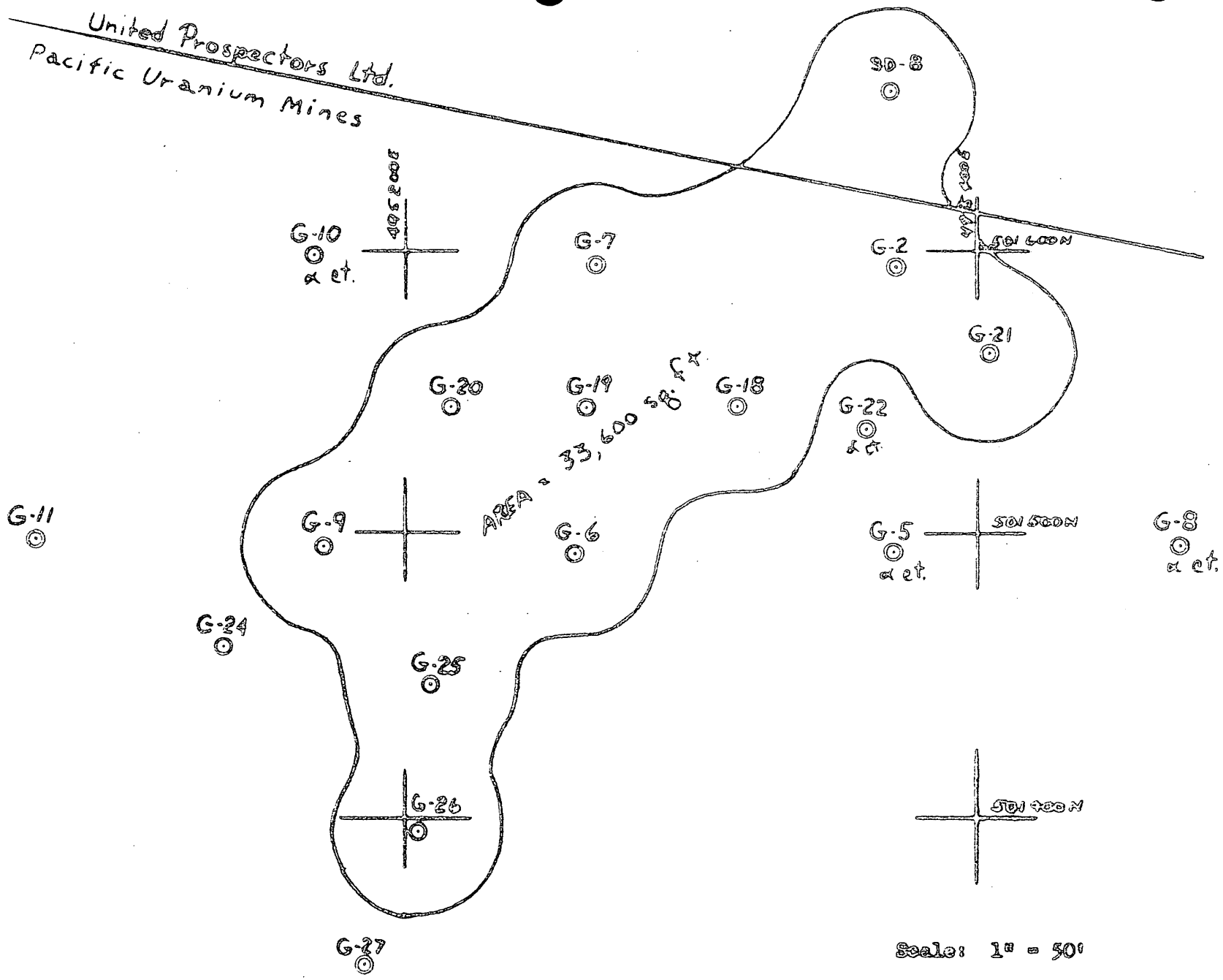


Figure 5. General Plan of Blocked-out Ore.

Pacific Uranium Mines Company

MONTHLY EXPLORATION DRILLING SUMMARY

Location: Wareham Claims, Green River, Utah, Month: April, 1956 Engineer in Charge: H. W. Evans

DMEA 3928

STATISTICAL

Hole No.	Contractor	Date Started	Date Completed	Coordinates North	Coordinates East	Collar Elev.	Depth	Footage Plug	Footage Core	% Core Rec.	Standby Time	Cost Plug	Cost Core	Cost Other	Cost Total
D-1	Scott	4/23	4/25	501,440	495,644	4403	319.5	287	32.5	86	0	430.50	113.75	0.00	544.25
D-3	"	4/25	4/27	501,274	494,737	4424	246.0	185	61.0	98	0	277.50	213.50	28.10	519.10
D-4	"	4/10	4/12	501,190	495,128	4406	274.0	201	73.0	100	0	301.50	255.50	0.00	557.00
D-5	"	4/12	4/14	501,106	495,519	4403	310.0	255	55.0	98	0	382.50	192.50	0.00	575.00
D-6	"	4/13	4/14	501,022	495,910	4413	364.0	320	44.0	98	0	480.00	154.00	0.00	634.00
D-7	"	4/18	4/25	500,938	496,300	4442	451.0	371	80.0	91	0	556.50	280.00	16.85	853.35
D-8	"	4/27	4/29	500,894	494,611	4420	240.0	185	55.0	94	0	277.50	192.50	28.10	498.10
D-9	"	4/19	4/23	500,810	495,002	4395	240.5	185	55.5	83	0	277.50	194.25	11.20	482.95
D-10	"	4/14	4/19	500,726	495,394	4399	308.5	206	102.5	88	0	309.00	358.75	0.00	667.75
D-11	"	4/15	4/18	500,642	495,785	4431	385.5	284	101.5	92	0	426.00	355.25	0.00	781.25
D-13	"	4/27	4/28	500,430	494,877	4396	244.0	188	56.0	92	0	282.00	196.00	0.00	478.00
D-24	"	4/29	4/30	498,530	494,251	4357	181.5	124.5	57.0	91	0	186.75	199.50	0.00	386.25
Total	12 Holes	18 working days					3564.5	2791.5	773.0	94	0	4187.25	2705.50	84.25	6977.00

GEOLOGICAL

Hole No.	Contact Depths Jm66-Jmsw			Ore Bearing Sandstone From	To	Thickness	Classification Ore	Min'	Fav	Unf	Assay Chemical Interval	Mineral	%	Radiometric Interval	%	Remarks
D-1	275			284	316	32		x								
D-3	187			187	242	55			x							
D-4	211			212	253	41		x								
D-5	260			259	303	44		x			297.0-.8	U308	0.24			
D-6	300			315	354	39	x					U308		302.2-3.8	1.0+	Plugged thru ore
D-7	408			408	447	39				x						
D-8	185			191	219	28		x								
D-9	196			196	235	39	x				231.5-2.9	U308	0.22			
D-10	225			259	303	44		x			297.5-8.0	U308	0.21			
D-11	300?			335	375	40	x				369.5-71.5	U308	0.42			Some V205
D-13	201?			202	242	40			x							
D-24	130			131	175	44			x							
						40.5 avg	3	5	3	1						

Pacific Uranium Mines Company

MONTHLY EXPLORATION DRILLING SUMMARY

Location: GREEN RIVER, UTAH Month: MAY, 1956 Engineer in Charge: H. W. EVANS

STATISTICAL

Hole No.	Contractor	Date Started	Date Completed	Coordinates North	Coordinates East	Collar Elev.	Depth	Footage Plug	Footage Core	% Core Rec.	Standby Time	Cost Plug	Cost Core	Cost Other	Cost Total
D-2	Scott	4-25	5-3	501,360	496,035	4430	379	337.0	42.0	83	-	505.50	147.00	-	652.50
D-12	"	5-7	5-9	500,516	494,485	4439	266	186.0	80.0	97	-	379.00	280.00	22.00	581.00
D-15	"	5-9	5-26	500,134	494,361	4450	278	189.0	89.0	89	-	283.50	311.50	22.00	617.00
D-16	" - Joy	5-7	5-10	500,050	494,752	4399	245.5	162.5	83.0	66	-	243.75	290.50	22.00	556.25
D-17	" - Poc	5-28	5-30	499,970	495,140	4415	306	234.0	72.0	71	-	351.00	252.00	33.00	636.00
D-18A	" - Poc	5-14	5-24	499,713	495,411	4398	335	246.0	89.0	88	-	369.00	311.50	11.00	691.50
D-19	"	4-29	5-1	499,754	494,236	4364	198	81.0	117.0	90	-	121.50	409.50	-	531.00
D-20	"	5-12	5-27	499,670	494,627	4415	305.5	168.0	137.5	75	-	252.00	481.25	22.00	755.25
D-21	" - Poc	5-15	5-24	499,291	494,502	4422	291	181.0	110.0	90	2	271.50	385.00	91.00	747.50
D-22	" - Poc	5-17	5-29	498,910	494,376	4366	245	134.0	111.0	83	-	201.00	388.50	22.00	611.50
D-25	"	5-2	5-7	498,447	494,642	4363	265	204.0	61.0	93	-	306.00	213.50	-	519.50
D-27	" - Joy	5-1	5-2	498,067	494,517	4352	215	160.0	55.0	98	-	240.00	192.50	-	432.50
D-30	"	5-17	5-23	497,139	495,048	4343	333.5	217.0	116.5	88	-	325.50	407.75	22.00	755.25
D-33	"	5-24	5-25	495,452	495,328	4351	380	310	70.0	86	-	465.00	245.00	5.50	715.50
Misc						**	106	106				159.00	***	33.00	192.00
Total	14 holes	25 working days					4148.5	2915.5	1233.0	85	2	4373.25	4315.50	305.50	8994.25
													8,688.75		

** Extra 106' on D-19 *** Bulldozer haulage

GEOLOGICAL

Hole No.	Contact Depths Jmbb-Jmsw			Ore Bearing Sandstone From	To	Thickness	Classification Ore	Min'	Fav	Unf	Assay Chemical Interval	Mineral	%	Radiometric Interval	%	Remarks
D-2	285			337	375	38			X							Lost 1st hole
D-12	191			191	265	74 *	X				216.9-8.1	U_3O_8	0.35	Same	0.40	3.3' @ 0.16%, V_2O_5 0.0
D-15	197			197	272	75 *			X							Not probed to [illegible].
D-16	168			168	241	73 *		X						225.4-6.2	0.96	Core lost thru ore
D-17	262			262	300	38				X						
D-18A	293			293	326	33				X				Chemical		Lost 1st hole
D-19	80			80	194	114 *	X				103.5-8.5	U_3O_8	0.78	151.5-2.8	0.27	V_2O_5-1.02%, 0.08%
D-20	145			145	290	145 *			X							Not probed to bot.
D-21	200			200	230	30				X						Lower SS 29' thk
D-22	177			177	194	17				X						
D-25	210			210	218	8				X						
D-27	155			155	208	53			X							
D-30	291			291	322	31				X						
D-33	311			311	375	64			X							
						56.6	2	1	5	6						

* Upper and lower sandstones merged into one unit.

Pacific Uranium Mines Company
MONTHLY EXPLORATION DRILLING SUMMARY

Location: Green River, Utah Month: June 1956 Engineer in Charge: H. W. Evans

STATISTICAL

Hole No.	Contractor	Date Started	Date Completed	Coordinates North	Coordinates East	Collar Elev.	Depth	Footage Plug	Footage Core	% Core Rec.	Standby Time	Cost Plug	Cost Core	Cost Other	Cost Total
D-14	Scott	6/7/56	6/8/56	500380	495250	4442	336	272	64	96		608.00	24.00	77.00	709.00
D-28	Scott	6/5/56	6/11/56	498012	495335	4411	393	370	23	90		555.00	80.50	66.00	701.50
D-31	Scott & Poc.	5/29/56	6/9/56	496375	494820	4424	397	350	47	98	18.75	625.00	64.50	62.75	752.25
D-32	Scott	5/20/56	6/5/56	496200	495577	4420	463	415	48	93		622.50	68.00	44.00	834.50
D-34	Scott&Poc.	5/28/56	6/6/56	494693	495077	4358	363	330	33	82	25.00	495.00	15.50	30.50	641.00
D-15		Washed and cased for probing									43.75			43.75	43.75
D-20		Washed and cased for probing									37.50			37.50	37.50
Total	5 Holes	11 working days					1952	1737	215	93	125.00	2605.50	752.50	361.50	3719.50

GEOLOGICAL

Hole No.	Contact Depths			Ore Bearing Sandstone From	To	Thickness	Classification Ore	Min'	Fav	Unf	Assay Chemical Interval	Mineral	%	Radiometric Interval	%	Remarks
D-14	263			263	282	19			x							
				304	332	28										
D-28	360			360	387	27				x						
D-31	351			351	392	38 *				x						* 2 MS splits
D-32	440			440	455	15				x						
D-34	288			288	296	8				x						

Pacific Uranium Mines Company
MONTHLY EXPLORATION DRILLING SUMMARY

Location: Green River, Utah Month: August, 1956 Engineer in Charge: H. W. Evans

STATISTICAL

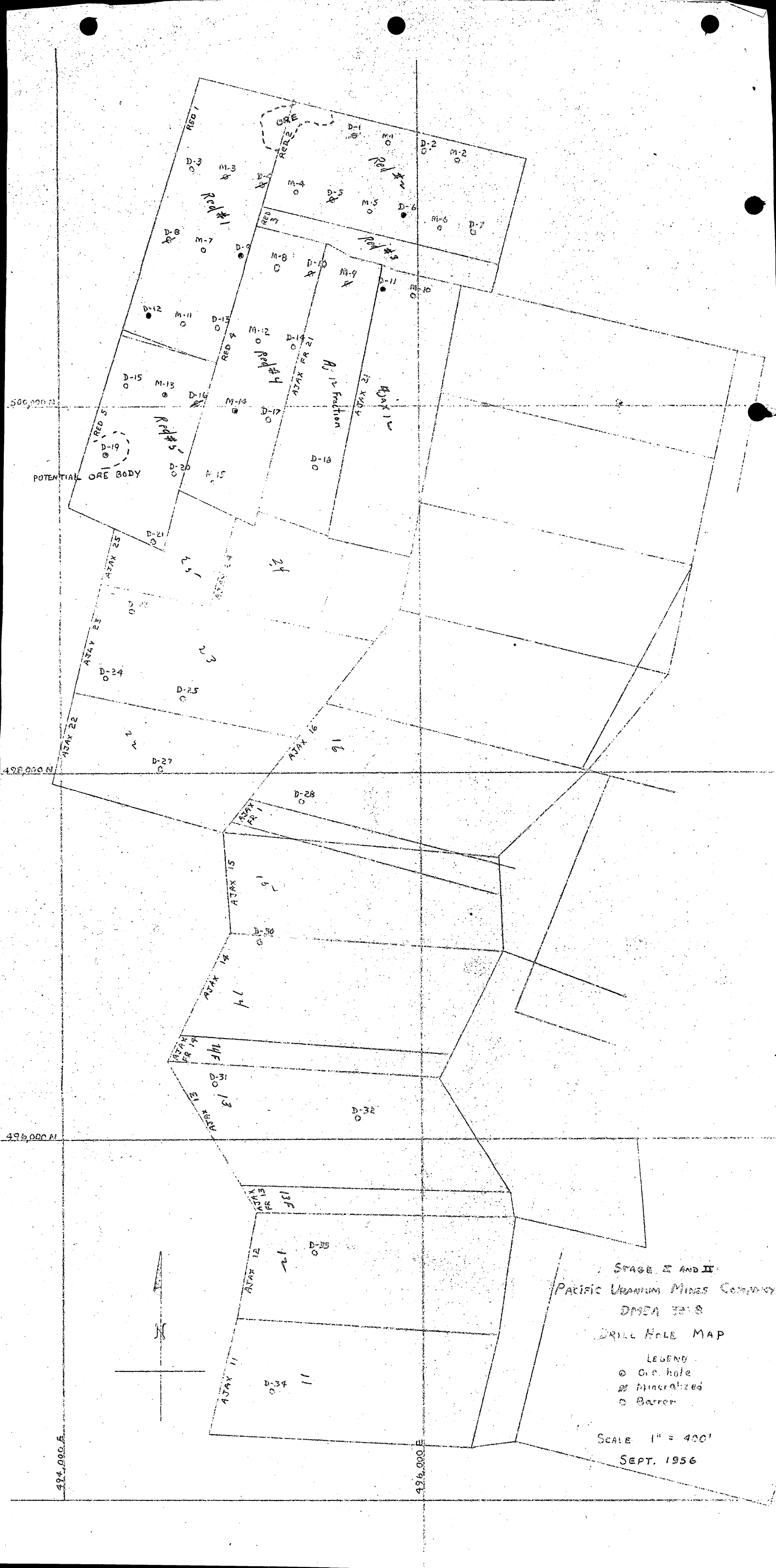
Hole No.	Contractor	Date Started	Date Completed	Coordinates North	Coordinates East	Collar Elev.	Depth	Footage Plug	Footage Core	% Core Rec.	Standby Time	Cost Plug	Cost Core	Cost Other	Cost Total
M-1	Scott & Poc	8/3	8/9	501386	495808	4407	351	281	70	74		421.50	245.00		666.50
M-2	Scott	8/6	8/14	501303	496199	4449	421	373	48	92		559.50	168.00		727.50
M-3	Scott & Poc	8/9	8/21	501167	494977	4400	254	165	89	79		247.50	311.50		559.00
M-4	Scott & Poc	8/1	8/7	501148	495324	4399	295	225	70	87	3/4 hr.	337.50	245.00	9.38	591.88
M-5	Scott & Poc	8/1	8/4	501064	495715	4401	344	270	74	96	1½ hr.	405.00	259.00	18.75	682.75
M-6	Scott	8/20	8/23	500975	496120	4442	425	347	78	60		520.50	273.00		793.50
M-7	Scott & Poc	8/9	8/15	500852	494807	4396	239	170	69	64	1½ hr.	255.00	241.50	18.75	515.25
M-8	Scott & Poc	8/2	8/11	500768	495198	4399	285	207	78	83		310.50	273.00		583.50
M-9	Scott & Poc	8/2	8/9	500684	495590	4402	333	255	78	88	2 hr.	382.50	273.00	25.00	655.50
M-10	Poc	8/21	8/29	500601	495980	4434	400	320	80	78		480.00	280.00		760.00
M-11	Scott & Poc	8/10	8/22	500500	494694	4408	255	170	85	91	1½ hr.	255.00	297.50	18.75	571.25
M-12	Scott & Poc	8/7	8/11	500381	495061	4400	270	195	75	81	3/4 hr.	292.50	262.50	9.37	564.37
M-13	Scott	8/10	8/11	500093	494557	4423	267	192	75	98		288.00	262.50		550.50
M-14	Scott & Poc	8/12	8/17	500017	494951	4393	262	192	70	91	3 hr.	288.00	245.00	37.50	570.50
M-15	Scott	8/12	8/16	499619	494812	4390	253	155	98	91	(14 hr.*)	232.50	343.00	175.00	750.50
Total	15 holes	26 working days					4654	3517	1137	84		$275.50	3979.50	312.50	9567.50**

*Delay due to inability of Engineer in charge to procure a bulldozer.

GEOLOGICAL

Hole No.	Contact Depths JM66 JMSW			Ore Bearing Sandstone From	To	Thickness	Classification Ore	Min'	Fav	Unf	Assay Chemical Interval	Mineral	%	Radiometric Interval	%	Remarks
M-1	303			303	345	42			X							
M-2	380			382	416	34			X							
M-3	191			191	246	55		X			223.8-4.8	U308	0.09	224.8-5.8	0.04	First hole lost
M-4	231			231	273	42			X							V205-0.38 & 0.18
M-5	294			294	339	45			X							
M-6	383			383	423	40			X							
M-7	185			190	223	33			X							
M-8	234			234	280	46			X							
M-9	286			286	327	41		X			320.0-1.1	U308	0.07			V205-0.02
M-10	372			372	399	27			X							
M-11	190			190	223	33			X							
M-12	228			228	266	38			X							
M-13	194			194	267	71	X				215.0-6.0	U308	1.48	225.5-5.8	0.44	3.6 V205 in M-13-1
M-14	222			222	255	33	X				248.8-9.3	U308	0.03	249.3-50.3	0.50	V205-0.06 trace
M-15	162(?)			212	249	37			X							
Totals and Averages						41	2	2	11	0						

**Total does not include bulldozing or incidental costs


STAGE I AND II
PACIFIC URANIUM MINES COMPANY
DRILL HOLE MAP
LEGEND
Ore hole
Mineralized
Barren
SCALE 1" = 400'
SEPT. 1956
POTENTIAL ORE BODY
ORE
500,000 N
498,000 N
496,000 N
494,000 E
496,000 E
N

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RECEIVED FEB 27 1959

DATE	INITIALS	CODE
2-27	C	220
		700

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

Date February 26, 1959
IMEA Docket No. 3928
IMEA Contract No. Idm-E926
Commodity Uranium
Name of Applicant Pacific Uranium Mines Co.
Location of property Emery County, Utah
Estimated cost of project $73, 306.00

Memorandum

To: Frederick L. Knouse, Acting Director, OME
Rare and Misc. Minerals Division

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

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

1. Date of subject document: 2/19/59. 2. Date received by reviewer: 2/25/59.

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 meeting 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). Drilling of stage III holes not recommended.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

224 New Customhouse
Denver 2, Colorado
February 20, 1959

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2/24 | C | 220
2/24 | | ~~700~~
2/27 | | 168
| | 800
| | 700

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium) Contract Idm-E926
Pacific Uranium Mines Company, (Green River claims)
Emery County, Utah

Reference is made to the Joint Final Engineering and Geologic Report by the OME field examiners, which was forwarded by our memorandum of February 19, 1959.

The word "not" which was inserted in ink in the second paragraph on page 3 is to be deleted. To clarify the matter, the field examiners meant that the 25 Stage III holes approved but not drilled under the contract are still warranted, regardless of the fact that the contract was terminated because of failure of the Operator to resume and complete the work by the dates specified in Amendment No. 5, item 4 (a).

J. W. Townsend

J. W. Townsend

F.T. FINAL REPORT

Reviewed by
OME OPERATING COMMITTEE
2-27-59
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

224 New Customhouse
Denver 2, Colorado
February 19, 1959

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2-24	C	220
2-24		100
2/27		130
		220

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium) Contract Idm-E926, Pacific Uranium Mines Company, (Green River claims) Emery County, Utah

Enclosed are the original and two copies of a Joint Final Engineering and Geologic Report, by J. William Hasler, Geologist, Geological Survey, and H. F. Robertson, Mining Engineer, Bureau of Mines, pertaining to work completed under the subject contract.

The exploration work completed resulted in the discovery of a significant quantity of uranium ore, on which a Certification of Discovery or Development was issued May 8, 1957.

The Field Team's final summary report will be submitted as soon as all matters prerequisite to closing the account have been resolved.

J. W. Townsend

Enclosures

Reviewed by
OME OPERATING COMMITTEE
2-27-59
(date)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT BY EXAMINING TEAM
REGION III

OME
DEPARTMENT OF THE INTERIOR
FEB 18 1959
REGION III
DENVER, COLORADO

DMEA 3928

Contract Idm-E 926

Pacific Uranium Mines Company

Green River Claims

Emery County, Utah

Uranium

Reviewed by
OME OPERATING COMMITTEE
2-27-59
(date)

Joint final Geologic and Engineering Report

by

J. W. Hasler
U. S. Geological Survey

H. F. Robertson
U. S. Bureau of Mines

February 1959

DMEA 3928
CONTRACT Idm-E 926
PACIFIC URANIUM MINES COMPANY
GREEN RIVER CLAIMS
EMERY COUNTY, UTAH

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ILLUSTRATIONS

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DMEA 3928
CONTRACT Idm-E 926
PACIFIC URANIUM MINES COMPANY
GREEN RIVER CLAIMS
EMERY COUNTY, UTAH

INTRODUCTION

Summary

The Pacific Uranium Mines Company, 292 S. LaCienega Blvd., Beverly Hills, California, applied for Government assistance to explore for uranium on a group of leased claims 18 miles northwest of Green River, Utah. The operator's proposed project consisted of 37,200 feet of core and noncore drilling in 108 holes and was designed to explore the upper one-third of the Salt Wash member of the Jurassic-Morrison formation.

A field examination was made on September 22, 1955, by W. D. McMillan and F. M. Byers, Jr. Utilizing the information gained by the on-site examination, the DMEA team and the operator agreed on a revision of the original program. The revised program was incorporated in Contract No. Idm-E 926, effective March 9, 1956, specifying a three-stage exploration project at a maximum overall cost of $73,840.00 (Amendment No. 2 reduced the overall cost to $73,306.00). Government participation would be 75 percent of the accepted costs or a maximum of $55,380.00 (Amendment No. 2 --$54,980.00).

Work under the contract commenced on April 10, 1956, and continued until August 30, 1956. During the active period, 31 Stage I holes and 15 Stage II holes were completed. On November 25, 1956, authorization to drill 25 Stage III holes was given, but the work was never started by the operator. Inasmuch as the operator showed no inclination to complete the work, the project was certified as a discovery on May 8, 1957, and, on December 16, 1958, the operator was notified that the contract was terminated, effective August 30, 1956.

The holes drilled under the first and second stages of the project inferred the presence of several small ore bodies scattered over the property. A total of 1,369 tons of ore averaging 0.59 percent U_3O_8 is calculated from the results of project drilling and two company holes drilled prior to DMEA participation.

The performance of the operator was satisfactory up to August 30, 1956. Between September 1956 and December 1958, no project work was performed and very little effort made by the operator or its assignee, Union Carbide Nuclear Company, to comply with DMEA requirements involved in the assignment of a contract.

Recommendations

The project was certified as a discovery on May 8, 1957, in accordance with recommendations of the Field Team.

Inasmuch as the project work was not completed, Government participation in the drilling of the 25 Stage III holes, authorized in November 1956, is recommended. A representative of the assignee claims that additional drilling has been performed but the results of the work are not known to the OME examiners. In any event, all previously completed work would be considered in evaluating an application for further Government participation.

LOCATION AND ACCESSIBILITY

The operator's Green River claim group is located in the east-central part of Emery County, Utah; more specifically, in Secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S.L.M.

The project area is situated in a long valley, paralleling the eastern flank of the San Rafael Swell. The claim groups are easily accessible from Green River, Utah, by proceeding west on U. S. Highway 6-50 for 4 miles; thence 2 miles south on Utah Highway 24; thence 7 miles west on a graveled U. S. Atomic Energy Commission access road.

The topography in the vicinity of the claims is comprised of low rolling hills and broad flat benches at a mean altitude of 4,400 feet, with a relief of about 200 feet. The thin topsoil is sparsely covered by desert-type vegetation consisting mostly of sagebrush and cactus. Scattered growths of stunted pinyon trees occur in more sheltered parts of the area.

The San Rafael Swell is located in the northern part of the Green River Desert and the climate is correspondingly arid, with extremes of temperature ranging from more than 100° F. during the summer to minus 20° F. during the winters. Underground mining operations are feasible throughout the year, but surface operations are subject to delays during short periods of inclement weather. Rain and snow storms occur rarely but can be severe, resulting in flashfloods and drifts with subsequent access road damage and work stoppages.

There were no unusual problems of access, supply, power, or labor. No timber suitable for mining purposes grows on or near the project area, but can easily be obtained from lumber yards at Green River. The project work was performed by an independent contractor who furnished the necessary drilling equipment and labor. The operator furnished supervisory and technical personnel. Water for drilling and mining is obtained from a reservoir containing water pumped from the Vitro shaft (DMEA 3767) just north of the operator's property. An ample supply of water has been available from the source since the shaft was sunk by Uranium Prospectors, Ltd., in the last quarter of 1955. Domestic water must, however, be hauled from Green River, Utah.

PROPERTY

The property, included in the project area and subject to the Government's royalty on mineral production therefrom, consists of 40 full-size lode mining claims and 14 fractional lode mining claims, all unpatented (fig. 3). The Notices of Location of the claims are recorded in the office of the County Recorder, Emery County, Utah, as follows:

Claim Name	Recording Data		
	Date	Book	Page
Ajax Nos. 1-22 incl.	12/10/54	J-70	37-41, 47-56, 60-66, incl.
Wills Nos. 1-9 incl.	12/10/54	J-70	57, 58, 70-76 incl.
Jeanie No. 1	12/10/54	J-70	59
Ajax Nos. 23-25 incl.	10/ 4/54	J-54	112-114 incl.
Ajax Fraction No. 1	12/11/54	J-71	240
Ajax Fractions Nos. 2-5 incl.	12/10/54	J-70	33-36 incl.
Ajax Fractions Nos. 6-8 incl.	12/10/54	J-70	67-69 incl.
Ajax Fractions Nos. 9,13, 14, 21	12/11/54	J-71	241-244 incl.
Wills Fractions Nos. 6, 9	12/11/54	J-71	245-246 incl.
Red Nos. 1-5 incl.	12/10/54	J-70	42-46 incl.

The claims are owned jointly by K. R. Wareham, E. C. Wareham, L. P. Brown, and E. Olsen and are held by right of location. Haile Mines, Inc., leased the claims from the owners, subsequently subleasing the claims to the operator, Pacific Uranium Mines Company. A "Consent to Lien and Subordination Agreement," signed by the owners, was obtained.

No conflicting claim locations which would affect the property boundaries are known. Several overlapping fractions are noted within the boundaries but apparently result from coverage of open areas occurring between full claims and no question as to ownership is involved.

HISTORY AND PRODUCTION

Uranium mining in the Green River area began about 1912, with the mining of outcropping ore bodies for radium and later for vanadium. No significant reserves were known in the area, however, until the completion of intensive exploration drilling by Four Corners Uranium Corporation on claims adjoining the west and northwest portions of the operator's property. The drilling program, completed about March 1, 1956, indicated reserves of nearly a quarter of a million tons of ore averaging 0.27 percent U_3O_8. Mining leases were assigned to various operators with subsequent sinking of shafts and inclines to the ore bodies. Current average monthly production from the Four Corners property amounts to about 3,000 tons.

Exploration work, prior to the DMEA project on the subject property, consisted of a total of 36 diamond-drill holes concentrated mostly on the claims, Red Nos. 1, 2, and 5. The holes were located essentially in three groups and closely spaced within each group in an attempt to block out minable ore reserves. The drilling performed under the DMEA contract discovered several other possible ore bodies but the project was terminated without adequately delimiting the deposits.

No development work has been done on the inferred deposits to date, consequently there has been no production of uranium from the subordinated claims. As of February 1, 1959, the U. S. Atomic Energy Commission had not received an application to certify the claims for the initial production bonus.

GEOLOGY

Stratigraphy

The Pacific Uranium Mines Company property is underlain by northerly trending belts of the Jurassic-Brushy Basin member of the Morrison formation, the Cretaceous "Buckhorn conglomerate," the "Cedar Mountain shale," and the Mancos shale (table 1). The rocks dip gently eastward so that the Brushy Basin member crops out in the westernmost part of the property (fig. 2) and the Mancos shale in the eastern part. The Jurassic-Salt Wash member of the Morrison formation crops out in a broad easterly dipping cuesta, one-half to three-quarters of a mile west of the property and dips under the applicant's property. The top of the Salt Wash ranges from slightly more than 100 feet beneath the surface at the westernmost corner of the property to more than 600 feet below the surface in the eastern part of the property. Therefore, drilling for the Salt Wash-type of ore deposits presently known in the area is feasible only in the western part of the property, where drilling depths are less than 450 feet.

The "Buckhorn conglomerate" and the "Cedar Mountain shale" were proposed by Stokes (1944), but inasmuch as these names are not accepted by the U. S. Geological Survey, both units are shown as Burro Canyon (Kb) on the photogeologic base map. The names, however, are in local geologic usage and hence are used in this report. The "Cedar Mountain shale" may be equivalent to the Dakota sandstone farther east, but such stratigraphic problems are beyond the scope of this report.

The Salt Wash member of the Jurassic-Morrison formation, as penetrated in many drill holes on the Pacific Uranium property, contains a thick sandstone unit in the upper part and consists of largely mudstone in the lower part. The sandstone unit is commonly fairly massive with few mudstone partings and ranges from 26 to 87 feet in thickness; thicknesses greater than 45 feet were penetrated in nearly all the drill holes. Where the sandstone is ore bearing, it is more than 50 feet thick, and the underlying mudstone unit is green in its upper 10 to 15 feet. Ore zones occur at one to three horizons. Where the sandstone is thick, it is also conglomeratic. Where the sandstone unit becomes thin, the mudstone immediately below probably intertongues laterally with the lower part of nearby thicker sandstone. In short, the upper part of the Salt Wash consists of one sandstone ledge; the lower part, of mudstone with subordinate thin siltstone and sandstone beds.

A generalized stratigraphic section of the Salt Wash member was estimated at the outcrop three-quarters of a mile west, where the sandstone ledge in the upper part is regarded as being semifavorable to unfavorable for the occurrence of ore deposits.

STRUCTURE

The Pacific Uranium Mines Company property lies on the east flank of the San Rafael Swell. The strike of the beds is slightly east of north. The dip averages about 7° east on the upper Salt Wash cuesta just west of the area shown on figure 2. The dip ranges from 3° to 6° east at the western extremity of the Pacific Uranium property and flattens eastward. Two parallel high-angle faults strike N. 60° W. across the north end of the property (fig. 2). These faults have less than 20 feet displacement.

According to Redmond, the more northerly fault at the northernmost end of the Pacific Uranium property drops a northerly segment of an ore body about 15 feet downward with respect to the southerly larger segment. This displacement is opposite to that shown on the photogeologic map, figure 2. Possibly the relative displacement changes along the strike of the fault.

ORE DEPOSITS

Uranium-vanadium ore bodies occur in one to three ore zones in the thick sandstone ledge comprising the upper part of the Salt Wash member of the Morrison formation. The uppermost ore zone beneath the Pacific Uranium property is at least 15 feet below the top of the sandstone; more commonly it is 20 to 30 feet. The second ore zone, if present, is commonly about 45 feet below the top of the sandstone; and the third 75 to 80 feet below the top, according to H. S. Johnson (DMEA report 3767, June 3, 1955). The uranium-vanadium ratio is about 1:2. According to Johnson, the deposits are elongate in a direction parallel to the primary sedimentary trends in the Salt Wash sandstone and probably are associated with an ancient stream channel. The sedimentary trends range from due north to N. 30° E.; a few known ore bodies also trend N. 30° E., but the Dede No. 8 ore body of the Uranium Prospectors Company, Ltd., (fig. 2), which was indicated by drilling under DMEA Contract Idm-E 792 (Docket 3620), appears to have no well-defined trend.

The ore bodies appear to become larger and the geologic environment more favorable downdip from the Salt Wash outcrop to the west, where ore bodies are limited to a few hundred tons by highly festooned crossbedding. Also at the outcrop, the upper Salt Wash sandstone ledge is only 30 to 40 feet thick and can at best be regarded as semifavorable for ore. The ore bodies presently being mined by inclines 1 to 6 of Four Corners Uranium Corporation and the Dede No. 8 ore body (fig. 2) are of the order of a few thousand tons, and their occurrence and extent is probably controlled by festooned cross-lamination (Carl H. Roach, personal communication, 1955). The ore body at incline 7, the larger Vanura No. 6 ore body, the ore body at the north end of Pacific Uranium Mines property (fig. 2), and one on the Jack Rabbit claims of the Uranium Prospectors Company to the north each contain several thousand tons of ore. The geologic controls of the larger ore bodies, as observed in many drill cores on Pacific Uranium Mines property, are believed to be flat-bedded festooned silt or mudstone laminae. The greater thickness of Salt Wash sandstone, and the more extensive green mudstone alteration associated with the sandstone, are also associated with the flatter bedding and the larger ore bodies by comparison with the geologic environment of the small deposits exposed in the Salt Wash rim to the west. At least the western part of the Pacific Uranium Mines Company property is underlain by part of a broad northerly trending paleo-stream channel, highly favorable to the occurrence of uranium ore bodies of several thousand tons. The eastern edge of this ancient channel of favorable sandstone is not presently known.

THE PROJECT

The purpose of the project was to explore for uranium ore bodies of significant size and grade the ore-bearing sandstone unit in the upper third of the Salt Wash member of the Jurassic-Morrison formation. Information from a field examination, previous exploration drilling, and work done by the U. S. Geological Survey and the U. S. Atomic Energy Commission indicated that the project area was generally favorable for the occurrence of uranium ore deposits--particularly near the west and northwest boundaries of the area. The proposed project covered the area east and south of known ore bodies, individually as large as 40,000 tons and aggregating about 200,000 tons of indicated ore. Government participation in the proposed exploration was considered justified since there appeared to be an excellent possibility of finding similar ore bodies on the unexplored claims in the project area.

Original Program and Modifications

The operator proposed a noncore and core drilling program requiring a total of 37,200 feet in 108 holes at an estimated overall cost of $67,740.00. The proposed program was to explore for the possible extensions of ore bodies on claims lying east and south of known ore bodies.

The program as outlined in the application consisted of a first stage of 46 holes on a 400-foot pattern on 14 claims, followed by a second stage of 38 holes at the intersection of diagonals from the favorable first stage holes, this in turn to be followed by a third stage of 24 holes on a 400-foot pattern on 24 of the eastern claims. All holes would be cored through the ore-bearing sandstone and probed radiometrically.

The DMEA examining team concluded that the operator's program would be acceptable if slightly modified with respect to staging and to hole spacing in the untested, southeastern part of the project area. Consequently, a revised program providing for 37,802 feet of drilling in 124 holes, costing an estimated $73,850.32, was submitted and recommended for approval.

The recommended program proposed a first stage of 34 holes regularly spaced over the western part of the project area. Holes in the northwestern half would be on 400-foot centers and those in the less favorable southwestern half would be on 800-foot centers. The main purpose of the first-stage drilling was to discover and/or more closely delineate areas favorable for uranium deposition.

Stage II would explore the more favorable areas on 200-foot and 400-foot centers and partly delineate ore bodies. An average of 40 feet of coring per hole was provided to obtain samples of the ore-bearing sandstone.

Stage III provided for offsetting significantly mineralized holes in order to reasonably delineate any indicated ore bodies. No third-stage hole could be less than 100 feet from a previously drilled hole.

The recommended program was incorporated in a contract, effective March 9, 1956, which specified a three-stage drilling program consisting of 34 holes in the first stage, not more than 50 holes in the second stage, and not more than 40 holes in the third stage at an estimated overall cost of $73,840.00. The maximum amount of Government participation at 75 percent of the accepted costs would be $55,380.00.

The contract was amended five times before the project was officially terminated and are as follows:

Amendment No. 1 - Effective June 1, 1956. Executed to authorize the omitting from drilling of certain holes and to approve revised locations of other holes. also stage I [illegible]

Amendment No. 2 - Effective June ~~25, 1956~~. Executed to provide for bulldozing costs in the ~~second~~ and third stages and reduce the total estimated cost of the project to $73,306.00.

Amendment No. 3 - Effective November 20, 1956. Executed to modify the description of work to be performed under Stage III and extend the date fixed for completion of the work to March 1, 1957.

Amendment No. 4 - Effective ~~March 18, 1957~~ Aug 30, 1956. Executed to authorize a work suspension during the period beginning August 30, 1956, and ending not later than September 30, 1957, and to extend the completion date from March 1, 1957 to December 9, 1957. The maximum period for payment of royalty was extended to 11 years.

Amendment No. 5 - Effective ~~October 28, 1957~~ Sept 30, 1957. Executed to authorize a work suspension during the period beginning September 30, 1957, and ending not later than March 30, 1958, and to extend the completion date from December 9, 1957 to September 30, 1958. The maximum period for payment of the Government's royalty was extended to 12 years. The amendment also provided for automatic termination of the contract as of August 30, 1956, if project work was not resumed on or before March 30, 1958.

Description of Work Completed

Stage I drilling began on April 10, 1956, and was completed June 11, 1956. Of the 31 holes completed during the period, 5 were classified as ore holes, 6 as mineralized, 9 as barren but favorable, and 11 as unfavorable. The results obtained by the drilling confirmed the opinion that the northwest part of the project area was properly classed as favorable for ore occurrence and warranted further exploration by means of the closer spaced second-stage drill holes.

After completion of Stage I, the operator proposed drilling 15 second stage holes; the locations conforming to spacing limitations specified by the contract. The proposed hole locations were recommended on the basis of the general association of the known mineralized holes with the semifavorable to favorable ground. The original intent of the combined Stage I and Stage II drill-hole pattern was to explore favorable ground on a 200 by 400-foot grid, the long axis of the grid being parallel to the northeasterly trend of known ore bodies in the favorable ground. Accordingly, the operator was authorized to drill the 15 proposed holes.

Work on Stage II commenced on August 1, 1956, and ended on August 30, 1956, with the completion of the 15 holes. Two of the second stage holes were classed as ore holes, two as mineralized, and 11 as barren but favorable. Sufficient favorableness was indicated by the combined results of Stages I and II to warrant a limited number of third stage offset holes.

The operator requested, on October 12, 1956, authorization to drill 26 Stage III holes which would offset previously completed ore-bearing or mineralized holes. On January 7, 1957, authorization was given to drill 25 of the requested Stage III holes. Four additional holes were tentatively approved, pending the results obtained by adjacent holes.

Work under the contract ended at this point as the operator did not drill any of the authorized Stage III holes. The property was subleased to the Union Carbide Nuclear Company but, due to various deficiences in the transaction, the DMEA contract could not be assigned to the new lessee. Ample time was granted for correction of the matter and resumption of the work and, on December 5, 1958, the operator was notified that the contract was terminated effective August 30, 1956, in accordance with the provisions of Amendment No. 5.

ORE RESERVES

During the course of the DMEA project, a total of 46 holes were drilled, of which 7 holes penetrated ore (1 foot of 0.20 percent U_3O_8 or equivalent) and 8 holes were mineralized (at least 1 foot of 0.03 percent U_3O_8). This represents a discovery of 1,369 tons of indicated and inferred ore averaging 0.59 percent U_3O_8 and having a gross value of $74,224.50. Table 3 is a tabulation of the ore reserves discovered by the DMEA program.

The indicated ore reserve occurs in the southwest portion of the Red No. 5 claim as outlined by DMEA hole No. D-19 and company drilled holes G-33 and G-35 (fig. 4). The deposit is estimated to contain 193 tons of uranium ore averaging 1.8 feet in thickness and 0.58 percent U_3O_8. Drill hole No. D-19 penetrated a 5-foot zone of ore-grade material assaying 0.78 percent U_3O_8, overlying a 1.3-foot thick zone assaying 0.27 percent U_3O_8. Holes G-33 and G-35 penetrated ore-bearing zones ranging from 0.5 to 2.1 feet in thickness and assaying from 0.07 percent U_3O_8 to 1.20 percent U_3O_8.

The reserves classed as inferred are based on the results of isolated ore holes scattered over the northwest portion of the project area (fig. 4). Necessary data--which the recommended and authorized Stage III drilling would have provided--is lacking, consequently the holes are too widely spaced to do more than infer the presence of possible ore bodies.

A summary of the calculated ore reserves discovered or developed by the DMEA project follows:

Class	Tons	Thickness	Percent U_3O_8	Value 1/
Indicated	193	1.8 feet	0.580	$10,132.50
Inferred	1,176	1.4 feet	0.605	64,092.00
Total	1,369			$74,224.50

1/ Does not include initial production bonus.

SUMMARY OF FACTUAL DATA

Work under the contract was accomplished during the period between April 10 and August 30, 1956, and consisted entirely of rotary core and noncore drilling from the surface. The total footage drilled amounted to 14,213 feet, of which 3,358 feet were core drilled (including 3.0 feet not approved for payment) and 10,855 feet were noncore drilled. The total cost of the actual drilling, as accepted by the Government was $28,025.00. The accepted overall cost of the project (subject to review by OME auditor) was $30,462.31; the amount of Government participation was $22,846.73, representing 75 percent of the overall cost.

No equipment was purchased for use on the project. Exploration drilling was done by Scott Bros. Drilling Company and Pocahontas Core Drilling Service, independent contractors. The other supplies and minor equipment used during the project were covered by the "incidental allowance," thereby leaving no salvage or disposal problems.

The following is a summary of general relationships between the accepted work performed and results obtained--based on DMEA data and reserve computations.

Drilling completed and accepted by DMEA:

Stage I -	9,559 feet
Stage II -	4,651 feet
Stage III-	none
	14,210 feet

Total approved cost of project		$ 30,462.31
Cost per foot of hole		2.14
Tons of ore indicated or inferred	1,369	
Average grade of ore	0.59 percent U_3O_8	
Gross value of ore		$ 74,224.50

No application has been made for initial production bonus on the subject property. The value of the ore reserves is calculated by use of the current minimum ore price schedule (for ore containing 0.59 percent U_3O_8, the price per ton, not including initial production bonus or haulage allowance, is $54.22).

CONCLUSIONS

The contract work--during the active period--was efficiently performed and supervised by the operator and no unusual difficulties were encountered in completion of the approved exploration drilling. With respect to achieving the contract objective, however, the project was not satisfactory, inasmuch as the operator failed to complete the authorized third stage work. Consequently, the possible size of inferred ore bodies was not determined. The remaining work could possibly justify further Government participation.

Indicated and inferred reserves totaling 1,369 tons of ore containing 0.59 percent U_3O_8 are computed on the basis of drill-hole data obtained during the project. The bodies are small and relatively thin, averaging about 200 tons each and are confined to the northwest portion of the project area. The remainder of the area appears to be semifavorable to unfavorable for the occurrence of significant uranium ore bodies.

The property was officially certified a discovery on May 8, 1957. By the terms of the contract (as amended) and of the certification, all minerals mined or produced from March 9, 1956 to March 9, 1967, are subject to the Government's royalty until the amount contributed by the Government is repaid.

Part of the subordinated ground is now owned or controlled by the Union Carbide Nuclear Company, P. O. Box 1049, Grand Junction, Colorado. The company may perform additional exploration and development work with subsequent repayment of the Government's contribution. To date, no royalty has been credited to the subject account.

Table 1.--Part of the Cretaceous and Jurassic section on the northeast flank of the San Rafael Swell, Emery County, Utah.

Age	Formation	Member	Approximate thickness	Description
Cretaceous	Mancos shale		3,000+	Light to dark gray, even bedded marine shale with a few sandstone lenses and gray limestone interbeds.
	Cedar Mountain shale		100	Dark gray shale with yellow sand and conglomerate at the base.
	Buckhorn conglomerate		30	Pebble conglomerate yellow in outcrop. Pebbles mostly gray quartz and black and red chert.
Jurassic	Morrison	Brushy Basin	300	Interbedded red and red-brown shales and orange sandstone.
		Salt Wash	200	Interbedded red-brown shales and yellow-orange sandstones. Much more sandstone than in the overlying Brushy Basin member.
	Summerville		200	Even bedded pink to red, fine- grained sandstone and siltstone.

Table 2.--Data obtained from Pacific Uranium Mines Inc., Emery County, Utah.
DMEA Docket 3928 Contract Idm-E 926

Hole No.[1/]	Footage noncore	Footage core (feet)	Total depth (feet)	Footage interval (feet)	Thickness in feet	Percent U_3O_8	Percent V_2O_5	Interval ore-bearing sandstone	Thickness in feet	Hole classification	% eU_3O_8	Thickness in feet
D- 1	287.0	32.5	319.5	--	--	--	--	284.0-216.0	32.0	Fav.	0.04	0.8
D- 2	337.0	42.0	379.0	324.4-326.8	2.4	--	--	337.0-375.0	38.0	Fav.	--	--
D- 3	185.0	61.0	246.0	--	--	--	--	187.0-242.0	55.0	Fav.	--	--
D- 4	201.0	73.0	274.0	--	--	--	--	212.0-253.0	31.0	Fav.	0.06	0.9
D- 5	255.0	55.0	310.0	296.2-297.0	0.8	0.24	--	259.0-303.0	40.0	Fav.	0.13	0.8
											0.03	1.5
D- 6	320.0	44.0	364.0	Plugged through ore sand	1.3	--	--	315.0-354.0	39.0	Fav.	1.05	1.3
D- 7	371.0	80.0	451.0	--	--	--	--	408.0-447.0	39.0	Unfav.	Barren	
D- 8	185.0	55.0	240.0	--	--	--	--	191.0-219.0	28.0	Fav.	0.06	1.0
D- 9	185.0	55.0	240.0	231.5-232.9	1.4	0.22	--	196.0-235.0	39.0	Fav.	0.05	1.0
											0.36	0.9
D-10	206.0	102.5	308.5	297.5-298.0	0.5	0.21	--	259.0-303.0	44.0	Fav.	--	--
D-11	284.0	105.5	385.5	370.0-370.5	0.5	0.53	--	335.0-375.0	40.0	Fav.	0.50	1.3
				370.5-371.0	0.5	0.87	--	--	--	--	0.03	0.9
				371.0-371.5	0.5	0.26	--	--	--	--	0.03	1.9
D-12	186.0	80.0	266.0	216.9-218.1	1.2	0.35	--	191.0-265.0	74.0	Fav.	0.40	1.2
				219.2-220.2	1.0	0.13	--	--	--	--	0.03	0.9
											0.18	1.1
D-13	188.0	56.0	244.0	--	--	--	--	202.0-242.0	40.0	Fav.	Barren	
D-14	272.0	64.0	336.0	--	--	--	--	262.0-282.0	19.0	Fav.	Barren	
								304.0-332.0	28.0	Fav.	Barren	
D-15	189.0	89.0	278.0	--	--	--	--	197.0-272.0	75.0	Fav.	Barren	
D-16	162.5	83.0	245.5	225.4-226.2	0.8	--	--	168.5-241.0	72.5	Fav.	0.96	0.8
				226.4-227.1	1.5	--	--	--	--	--	1.50	0.7
D-17	234.0	72.0	306.0	--	--	--	--	262.0-300.0	38.0	Unfav.	Barren	
D-18A	246.0	89.0	335.0	--	--	--	--	293.0-326.0	33.0	Unfav.	Barren	
D-19	81.0	117.0	198.0	103.5-104.5	1.0	0.04	--	80.0-194.0	114.0	Fav.	0.29	0.8
				104.5-105.5	1.0	0.08	--	--	--	--	0.02	2.2
				105.5-106.5	1.0	0.40	--	--	--	--	5.00	1.0
				106.5-107.5	1.0	2.09	--	--	--	--	1.50	1.1
				107.5-108.5	1.0	1.31	--	--	--	--	0.03	0.9
				151.5-152.8	1.3	0.27	--	--	--	--	0.43	0.9
D-20	168.0	137.5	305.5	--	--	--	--	145.0-208.0	63.0	Fav.	0.22	0.8
						Barren	--	--	--	--	0.02	1.48
D-21	181.0	110.0	291.0	--	--	--	--	200.0-230.0	30.0	Unfav.	0.02	1.10
								254.0-283.0	29.0	Unfav.	Barren	
D-22	134.0	111.0	245.0	--	--	--	--	177.0-194.0	17.0	Unfav.	Barren	
D-23	Omitted	--	--	--	--	--	--	--	--	--	--	--
D-24	124.0	57.0	181.5	--	--	--	--	131.0-175.0	44.0	Fav.	Barren	
D-25	204.0	61.0	265.0	--	--	--	--	210.3-217.5	7.2	Unfav.	Barren	
D-26	Omitted	--	--	--	--	--	--	--	--	--	--	--
D-27	160.0	55.0	215.0	--	--	--	--	160.0-217.0	57.0	Fav.	Barren	
D-28	370.0	23.0	393.0	--	--	--	--	360.0-387.0	27.0	Unfav.	Barren	
D-29	Omitted	--	--	--	--	--	--	--	--	--	--	--
D-30	217.0	116.5	333.5	--	--	--	--	291.0-322.0	31.0	Unfav.	Barren	

Table 2.--Data obtained from Pacific Uranium Mines Inc., Emery County, Utah--Continued.
DMEA Docket 3928 Contract Idm-E 926

	Hole No.[1]	Footage noncore	Footage core (feet)	Total depth (feet)	Footage interval (feet)	Thickness in feet	Percent U_3O_8	Percent V_2O_5	Interval ore-bearing sandstone	Thickness in feet	Hole classification	% eU_3O_8	Thickness in feet
	D-31	350.0	47.0	397.0	--	--	--	----	351.0-392.0	38.0	Unfav.	Barren	
	D-32	415.0	48.0	463.0	--	--	--	--	440.0-445.0	15.0	Unfav.	Barren	
	D-33	310.0	70.0	380.0	--	--	--	--	313.0-373.0	60.0	Fav.	Barren	
	D-34	330.0	33.0	363.0	--	--	--	--	288.0-295.0	8.0	Unfav.	Barren	
Totals Stage I drilling	31	7,338.0	2,220.5	9,558.5		Average thickness OBSS ------ 40.0							
	M- 1	281.0	70.0	351.0	--	--	--	--	303.0-345.0	42.0	Fav.	Barren	
	M- 2	373.0	48.0	421.0	--	--	--	--	382.0-416.0	34.0	Fav.	Barren	
	M- 3	165.0	89.0	254.0	223.8-224.8	1.0	0.09	--	191.0-246.0	55.0	Fav.	0.02	1.4
					224.8-225.8	1.0	0.04	--	--	--	--	0.11	1.0
												0.04	0.7
	M- 4	225.0	70.0	295.0	--	--	--	--	231.0-273.0	42.0	Fav.	Barren	
	M- 5	270.0	74.0	344.0	--	--	--	--	294.0-335.0	45.0	Fav.	Barren	
	M- 6	347.0	78.0	425.0	--	--	--	--	383.0-423.0	40.0	Fav.	Barren	
	M- 7	170.0	69.0	239.0	--	--	--	--	190.0-223.0	33.0	Fav.	Barren	
	M- 8	207.0	78.0	285.0	--	--	--	--	234.0-280.0	46.0	Fav.	Barren	
	M- 9	225.0	78.0	333.0	320.0-321.1	1.1	0.07	--	286.0-327.0	41.0	Fav.	0.02	1.6
		--	--	--	--	--	--	--	--	--	--	0.42	0.7
		--	--	--	--	--	--	--	--	--	--	0.04	0.8
	M-10	320.0	80.0	400.0	--	--	--	--	372.0-399.0	27.0	Fav.	Barren	
	M-11	170.0	85.0	255.0	--	--	--	--	190.0-233.0	33.0	Fav.	Barren	
	M-12	195.0	75.0	270.0	--	--	--	--	228.0-266.0	38.0	Fav.	Barren	
	M-13	192.0	75.0	267.0	215.0-216.0	1.0	1.48	3.60	194.0-267.0	71.0	Fav.	1.10	0.8
					255.3-255.8	0.3	0.44	--	--	--	--	0.05	0.8
	M-14	192.0	70.0	262.0	248.8-249.3	0.5	0.03	--	222.0-255.0	33.0	Fav.	0.38	1.0
		--	--	--	249.3-250.3	1.0	0.50	--	--	--	--	--	--
	M-15	155.0	98.0	253.0	--	--	--	--	162.0-203.0	41.0	Fav.	Barren	
									212.0-348.0	36.0	Fav.	Barren	
Totals Stage II drilling	15	3,517.0	1,137.0	4,654.0		Average thickness OBSS ------ 44.0							
Totals for Project	46	10,855.0	3,357.5	14,212.5		Average thickness OBSS ------ 40.8							

1/ Holes with "D" numbers designate Stage I drilling, and holes with "M" designate Stage II drilling.

Table 3.--Ore reserve estimates, Pacific Uranium Mines Inc., Emery County, Utah.
Indicated and inferred reserves discovered under DMEA Contract Idm-E 926.

	Hole No.	Diameter (feet)	Area sq. feet	Thickness in feet	Area x thickness (cubic feet)	Tons	Percent U_3O_8	Tons x % U_3O_8
Inferred reserves	D- 6	50	1,963	1.3	2,551	182	1.05e	191.1
	D- 9	50	1,963	1.4	2,748	196	0.22	43.1
	D-11	50	1,963	0.5	981	70	0.53	37.1
		50	1,963	0.5	981	70	0.87	67.9
		50	1,963	0.5	981	70	0.26	18.2
	D-12	50	1,963	1.2	2,355	168	0.35	58.8
		50	1,963	1.0	1,963	140	0.13	18.2
	M-13	50	1,963	1.0	1,963	140	1.48	207.2
	M-14	50	1,963	1.0	1,963	140	0.50	70.0
Totals and averages				1.4		1,176	0.605	7,116.0
Indicated reserves	D-19			1.0			0.04	
				1.0			0.08	
				1.0			0.40	
				1.0			2.09	
				1.0			1.31	
				1.3			0.27	
	G-33 1/			1.6			0.64	
	G-35 1/			1.5			0.38	
				2.1			0.07	
				0.9			1.20	
				1.4			0.16	
				1.3			0.41	
Total indicated reserves on Red No. 5 SW ore body			10,000	1.8	27,000	193	0.58	Weighted average grade

1/ Not a DMEA hole, but included in ore reserve calculation.

Table 4.--Summary of project costs.
DMEA 3928 Contract Idm-E 926
Pacific Uranium Mines Company

Contract Items	Unit	Actual Unit Cost	Claimed Units	Claimed Cost	Accepted Units	Accepted Cost	Contract Maximums (As Amended) Units	Unit Costs	Total Cost
Actual Costs									
Stage I									
Noncore drilling	foot	$ 1.50	7,338	$11,007.00	7,338	$11,007.00	7,200	$ 1.50	$10,800.00
Core drilling	foot	3.50	2,221	7,773.50	2,221	7,773.50	2,480	3.50	8,680.00
Bulldozing	hour	11.00	20	220.00	20	220.00	20	11.00	220.00
Stage II									
Noncore drilling	foot	1.50	3,517	5,275.50	3,517	5,275.50	13,000	1.50	19,500.00
Core drilling	foot	3.50	1,137	3,979.50	1,134	3,969.00	2,000	3.50	7,000.00
Bulldozing	hour	9.88	33	326.07	33	326.07	80	11.00	880.00
Stage III									
(Total Actual Costs)	No Stage III work was performed						--	--	21,071.00
Fixed Unit Costs									
Stage I									
Incidental allowance	foot	0.125	9,559	1,194.87	9,559	1,194.87	9,680	0.125	1,210.00
Chemical analyses	each	5.00	15	75.00	15	75.00	30	5.00	150.00
Stage II									
Incidental allowance	foot	0.125	4,654	581.75	4,651	581.37	15,000	0.125	1,875.00
Chemical analyses	each	5.00	8	40.00	8	40.00	45	5.00	225.00
Stage III									
(Total fixed unit costs)	No Stage III work was performed						--	--	1,695.00
Project totals				$30,473.19		$30,462.31 1/			$73,306.00

1/ Subject to OME Auditor's Report of Review.

Government participation in accepted costs at 75 percent - $22,846.73

Average overall cost of drilling per foot - $ 2.14

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
FEBRUARY 1959. Idm-E 926 DMEA 3928

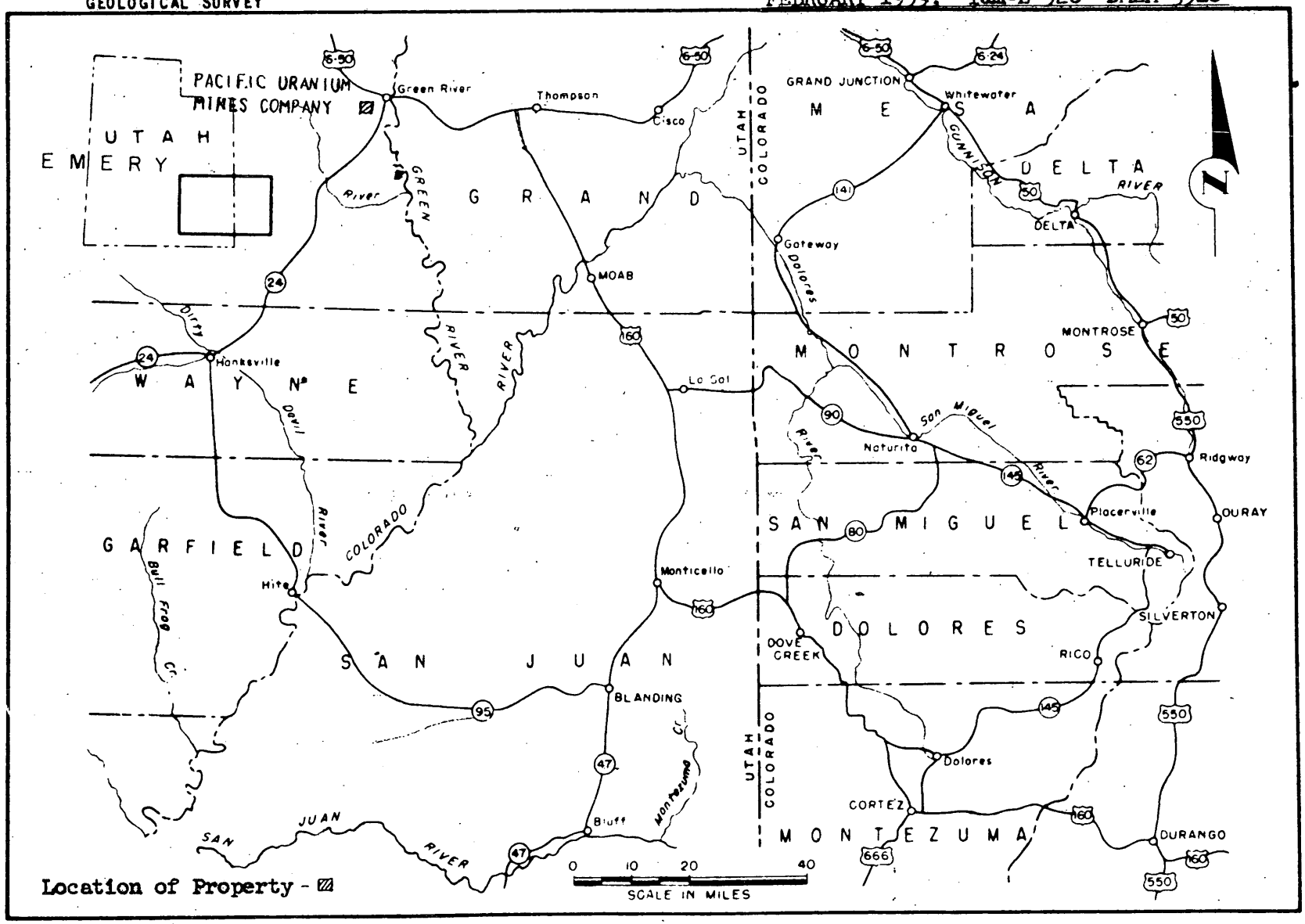
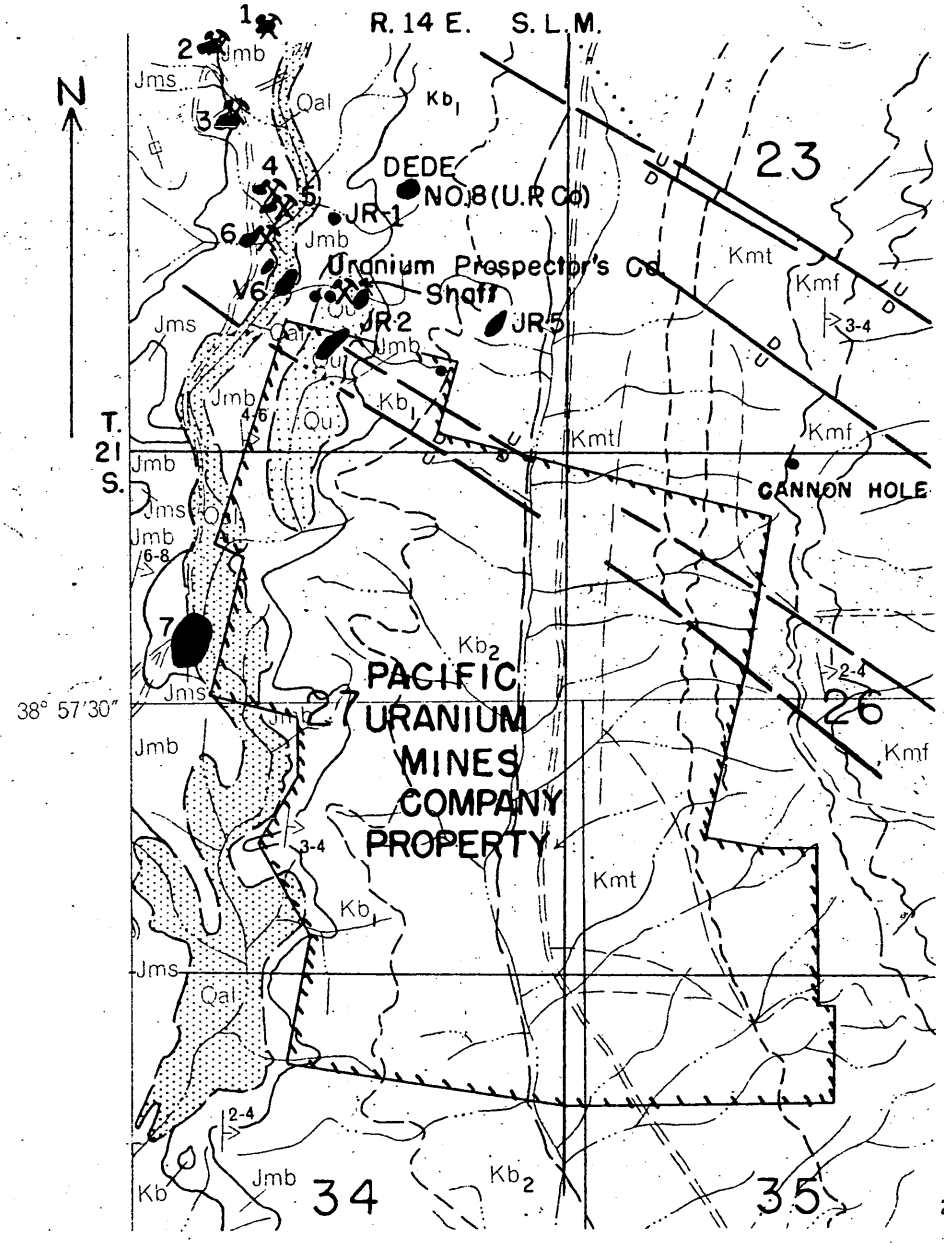


Figure 1.--Location map, Pacific Uranium Mines Company property, Emery County, Utah.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
FEBRUARY 1959, Idm-E 926 DMEA 3928



EXPLANATION

Qal / Qu — QUATERNARY DEPOSITS (ALLUVIUM, Qal; UNDIFFERENTIATED SAND, ETC., Qu)

Kmu / Kmf / Kmt — CRETACEOUS MANCOS SHALE (UPPER PART Kmu; FERRON(?) SANDSTONE MEMBER, Kmf; TUNUNK SHALE MEMBER, Kmt)

Kb2 / Kb1 — CRETEOUS BURRO CANYON FORMATION (INCLUDES "BUCKHORN CONGLOMERATE", Kb , AND "CEDAR MOUNTAIN SHALE", Kb)

Jmb / Jms — JURASSIC MORRISON FORMATION (BRUSHY BASIN SHALE MEMBER, Jmb; SALT WASH SANDSTONE MEMBER, Jms)

2-4 — STRIKE AND DIP OF BEDS

2 — INCLINE OR VERTICAL SHAFT (NUMBERS DESIGNATE WORKING INCLINES OF FOUR CORNERS URANIUM CORPORATION)

ORE BODY (BODIES WITH PREFIX JR, JACK RABBIT CLAIMS: BODIES WITH PREFIX V6, VANURA 6 CLAIMS)

ORE-BEARING HOLE

Note: BASE FROM U.S. GEOLOGICAL SURVEY PHOTOGEOLOGIC QUADRANGLE MAP TIDWELL3.

2000 0 4000 FEET

Figure 2. GENERALIZED GEOLOGIC MAP SHOWING ORE BODIES AND ORE HOLES, PACIFIC URANIUM MINES COMPANY PROPERTY, EMERY COUNTY, UTAH

O. M. E. RECEIVED FEB 24 1959		
DATE	INITIALS	CODE
2/24	C	220
2/24	[illegible]	800
2/26	Murphy	700

224 New Customhouse
Denver 2, Colorado
February 19, 1959

CERTIFIED MAIL

Mr. Bernard M. Silbert, President
Pacific Uranium Mines Company
Suite 210, 292 S. LaCienega Blvd.,
Beverly Hills, California

Re: Docket No. DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Dear Mr. Silbert:

We have not been favored with a reply to our letter of January 27, 1959, whereby we requested advice as to the date on or before which we could expect to receive the required five copies of the Operator's final engineering and geologic report, in conformance with Article 7 (c) of the contract form.

We wish to cooperate fully with you in allowing ample time for submission of the required final report, but if is has not been received by March 20, 1959, we will then consider that you do not intend to submit a report, in which case we will have no alternative than to take such action as is indicated to protect the Government's interest.

Very truly yours,

Original signed by
J. W. TOWNSEND

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

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
Hasler
Robertson, OME/GJ
Corres.file, Reg.III
Cooper
Chron

STOP

OFFICIAL FILE COPY O. M. E. RECEIVED JAN 30 1959		
DATE	INITIALS	CODE
1/30	C	220
1/30	[illegible]	800
~~1/30~~	~~[illegible]~~	~~700~~

224 New Customhouse
Denver 2, Colorado
January 27, 1959

Mr. Bernard M. Silbert, President
Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Blvd.,
Beverly Hills, California

Re: Docket No. DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Dear Mr. Silbert:

Reference is made to a letter dated December 5, 1958, from the Acting Director, OME, whereby you were advised of the termination of the captioned contract and whereby you were requested to promptly perform all winding-up and settlement actions, including the rendering to this office of the required five copies of a final engineering and geologic report, in conformance with Article 7(c) of the contract form.

An amount of $500.00 was withheld from reimbursement to your company in processing the final voucher for the month of August, 1956. Final payment to your company for the amount withheld is contingent upon release to this office of a Certificate and Report of Audit, or Report of Review of reported project costs by the Contract Administration and Audit Division, OME. The audit or review cannot be scheduled until your final report is received in this office.

We wish to close the account at an early date, therefore, we will appreciate a reply by return mail giving a firm commitment as to the date on or before which we can expect to receive your final report.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. T. Townsend
Executive Officer, OME
Field Team, Region III

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
Hasler
Robertson, OME/GJ
OME/DFC
Corres. file, Reg. III
Cooper
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~DEFENSE MINERALS EXPLORATION ADMINISTRATION~~
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE
11/24	C	220
		130
11/25	Murphy	780

November 20, 1958

Memorandum

TO: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium) Contract No. Idm-E926
Pacific Uranium Mines Company (Green River claims)
Emery County, Utah

Reference is made to your letter of November 14, 1958, regarding the possible assignment of the subject contract.

Enclosed are two copies of the Option Agreement under contract referred to in our letter to Mr. Ary, dated September 15, 1958. The additional data and material requested from Mr. Ary at that time has not been received.

We believe that sufficient time has been allowed the proposed Assignor and Assignee to provide the requested material; therefore, under the circumstances, and since the contract was Certified as a Discovery or Development May 8, 1957, we do not believe it to be to the Government's interest to further defer closing the account.

Work under the contract was not resumed by Pacific Uranium Mining Company prior to March 30, 1958; therefore, it is recommended that the provisions under Item 4(a)(1) of Amendment No. 5, be made effective for automatic termination of the contract, effective August 30, 1956, and that the Operator be so advised by your office.

J. W. Townsend

J. W. Townsend

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/14	Murphy	700
11/14	Knoose	700
11/14	GCS	130
11/14	Jensen	110
		~~100~~
11/17	C	220
		700

NOV 14 1958

Mr. J. W. Townsend
Executive Officer
OME Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. Townsend:

This is with reference to your letter, dated September 15, 1958, to Union Carbide Nuclear Company, relating to the possible assignment of the subject contract.

Will you kindly advise this office whether the data you requested has been received. Also, since work under the contract has been in abeyance for some time, will you kindly submit your recommendations with regard to terminating the subject contract in its present status.

Sincerely yours,

George C. Selfridge
(per)
ACTING Chairman, Operating Committee

APPROVED:

Richard H. Mofe (per)
Member, Bureau of Mines

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

FMMurphy/gla
11-14-58
cc to: Director's Reading File
Operating Committee
THKillsgaard, 5224
FMMurphy

8623

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE
9/15 C 220
9/18 800
700

224 New Customhouse
Denver 2, Colorado
September 15, 1958

T. S. Ary
Assistant Manager of Exploration
Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-3926
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Dear Mr. Ary:

Receipt is acknowledged of three copies each of an Option and a Sublease between Union Carbide Corporation and Pacific Uranium Mines Company. Review of the instruments discloses the following:

1. The Sublease is not dated nor signed by the parties to the Sublease.

2. The land included in the Option and the Sublease does not cover all of the land subordinated under DMEA Exploration Project Contract No. Idm-3926.

   The claims subordinated under the contract but not included in the Option and Sublease are as follows:

   Ajax Nos. 23 to 25, inclusive;

   Ajax Fractions Nos. 1 to 9, inclusive;

   Ajax Fractions Nos. 13, 14, and 21;

   Wills Fractions Nos. 6 and 9.

Before further consideration can be given by the Government for assignment of the contract from Pacific Uranium Mines Company to Union Carbide Corporation, it will be necessary that you obtain control of the balance of the land subordinated under the contract and submit

to this office either three photo copies of the signed instrument or three certified true copies thereof, whereby Union Carbide Corporation acquired the interests of Pacific Uranium Mines Company in all of the lands subordinated under the contract.

Please forward the required copies of the above instruments to this office, or inform this office of your plans in the matter. Your immediate attention is requested.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

cc: Pacific Uranium Mines Company

JBC:yrl

cc: Chmn. Op. Comm. (2)
Harriman
Robertson DMEA/GJ
Hasler
DMEA/DFC
Corres. file
Cooper
Chron.

224 New Customhouse
Denver 2, Colorado
September 2, 1958

SEP 5 1958

9/5 C 220
9/5 800
" 700
(Murphy)

Mr. T. S. Ary
Assistant Manager of Exploration
Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. DMEA 3908 (Uranium)
Contract No. Ida-2906
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Dear Mr. Ary:

In reference to the proposed assignment of Contract No. Ida-2906 from Pacific Uranium Mines Company to Union Carbide Nuclear Company, you are referred to the fourth paragraph of our letter to you of March 31, 1958.

Before consideration can be given to the matter of assignment of the contract, it is necessary that you supply this office with three signed copies, or photostats of the original signed instrument, whereby Union Carbide Nuclear Company acquired the interest of Pacific Uranium Mines Company in the land subordinated under Contract No. Ida-2906.

If the requested material is not received in this office by September 15, 1958, we will assume that you are no longer interested in performing work under the DMEA contract and will initiate steps to close the account in its present status.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

JWT:prl
cc: Comm. Op. Comm. (2)
Hardman
DMEA/RFC
DMEA/GJ
Hasler
Corres. file
Cooper
Caren.
w/copy of Chairman's teletype of August 29.

cc: Mr. B. M. Silbert, President
Pacific Uranium Mines Company
Suite 810 - 898 S. La Cienega Blvd.
Beverly Hills, California

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/28/58	Ching	700
8/29	Kuonde	700
8/29	GLS	130
8/29	Yopes	130
8/29	Nelson	130
"	Johnson	110
"	Rutherford	100
9/2	C D	220
		700

29 1958

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

J. W. TOWNSEND
ALTERNATE ACTING EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER, COLORADO

REURTT AUGUST 27 PACIFIC URANIUM MINES COMPANY DOCKET 3928. WE REQUIRE COPY OF SUBLEASE OR ASSIGNMENT OF LEASE FROM PACIFIC TO UNION CARBIDE BEFORE WE CAN PREPARE NECESSARY ASSIGNMENT OF CONTRACT, ASSIGNEE'S ACCEPTANCE, AND GOVERNMENT"S CONSENT FOR EXECUTION BY INTERESTED PARTIES.

George C. Selfridge

CHAIRMAN, OPERATING COMMITTEE

MChing/gla
8-28-58
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Ching

Confirmation to Region III

8623

Mr. George Selfridge

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 28 1958

DATE	INITIALS	CODE
8/28	C	220
"	Ching	700
	(Murphy)	

DN 235 BUR IMINES 8-27-58 9-55

CHAIRMAN, OPERATING COMMITTEE, DMEA

RE DOCKET DMEA 3928, CONTRACT IDM-E926, PACIFIC URANIUM MINES CO.
PLEASE TELETYPE ADVICE AS TO STATUS OF PROPO ED ASSIGNMENT OF CONTRACT
TO UNION CARBIDE NUCLEAR CO.

J W TOZNSENDXXXX TOWNSEND

2 LINE PROPOSED

Glenwood, Colo.

UNION CARBIDE NUCLEAR COMPANY • DIVISION OF UNION CARBIDE CORPORATION

P. O. BOX 1049, GRAND JUNCTION, COLORADO

July 28, 1958

DATE	INITIALS	CODE
7/30	C	220
		720

Mr. C. O. Mittendorf
Department of Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Dear Mr. Mittendorf:

This letter is to advise you that Union Carbide Nuclear Company has exercised their option on the Pacific Uranium Mines Company property in Emery County, Utah. We would like to advise the D.M.E.A. that Union Carbide will actively pursue the present D.M.E.A. program on the above-mentioned claims. This D.M.E.A. Contract is referred to as Docket No. DMEA-3928 (Uranium), Contract No. Idm-E926, Green River Claims, Emery County, Utah.

I have personally contacted Mr. J. W. Hasler of the Grand Junction office concerning our plans and will arrange a meeting with Mr. Hasler to discuss the various aspects of a D.M.E.A. program. This will be the first D.M.E.A. operation that Union Carbide Corporation has attempted; therefore, I have asked Mr. Hasler to advise me as to the methods, etc. required under the D.M.E.A. Contract.

Some drilling has been done by our Exploration Department in this area and it might be necessary for us to revise the old D.M.E.A. drilling program and pattern. I am hopeful that Mr. Hasler will be able to advise me about this aspect of the contract.

Very truly yours,

UNION CARBIDE NUCLEAR COMPANY

T S Ary

T. S. Ary
Assistant Manager
Exploration

TSA/ab

cc: Mr. Bernard M. Silbert
Mr. J. W. Townsend
Mr. W. J. Hasler

PACIFIC URANIUM MINES COMPANY

SUITE 210
292 SOUTH LA CIENEGA BLVD.
BEVERLY HILLS, CALIFORNIA
OLEANDER 5-7771

July 23, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 25 1958

DATE	INITIALS	CODE
7/25	C	220
"	FMM	700

Mr. Townsend
United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Green River Claims
Emery County, Utah

Gentlemen:

This will acknowledge receipt of your letter of July 16, 1958.

We have subleased the subject property to Union Carbide Nuclear Company. I am this day writing to that company, requesting that they immediately contact you in answer to your previous letters.

Thanking you for your indulgence, I am

Very truly yours,

PACIFIC URANIUM MINES COMPANY

By Bernard M. Silbert
Bernard M. Silbert, President

BMSdes

2 cc's sent Reg. 3 - 7-25-58 zm

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7-11	Murphy	700
7-15	Chambers	800
7/18	Johnson	110
"	Fruitwater	100
7/16	C	220
/		700

JUL 16 1958

Mr. Bernard M. Silbert, President
Pacific Uranium Mines Company
Suite 210, 292 S. La Cienega Blvd.
Beverly Hills, California

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Green River Claims
Emery County, Utah

Dear Mr. Silbert:

This is with reference to Mr. J. W. Townsend's letters, dated March 31 and May 22, 1958, addressed to Union Carbide Nuclear Company and to you, respectively, relating to the above-referenced contract.

Mr. Townsend has informed this office that no reply has been received to either of the above-mentioned letters. We wish to advise you that the matters mentioned in Mr. Townsend's letter to Union Carbide Nuclear Company must be answered within 30 days from the date of this letter; otherwise, this Agency will initiate action to close the subject account. Your reply to this letter should be addressed to Mr. Townsend, and a copy forwarded to this office.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Copy to: Union Carbide Nuclear Company
Grand Junction, Colorado

FMMurphy/izm 7-11-58
cc: Mr. Murphy
Admr.'s Reading File
DMEA FT Reg. 3 (2)

0033

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado
July 9, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 11 1958

DATE	INITIALS	CODE
7/11	C	220
"	Murphy	700

Memorandum

To: Chairman, Operating Committee, DMEA

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium) Contract Idm-E926, Pacific Uranium Mines Company, (Green River claims) Emery County, Utah

Under the provisions of Amendment No. 5, item 4(a), the subject contract was to have been terminated effective August 30, 1957, if work was not resumed on or before March 30, 1958.

You are referred to the following correspondence relative to the matter, and also concerning possible assignment of the contract, copies of which were forwarded to your office on March 31, 1958, and May 22, 1958.

1. Letter from Union Carbide Nuclear Company, dated March 27, 1958, with enclosures, concerning possible assignment of the contract, and informing this office that project work was resumed, effective March 28, 1958.

2. Letter dated March 31, 1958, from this office to Union Carbide Nuclear Company, regarding the requirements for assignment of the contract. A copy of this letter was furnished to Pacific Uranium Mines Company.

3. Letter dated May 22, 1958, from this office to Pacific Uranium Mines Company, whereby the Operator was advised of its default under the terms of the contract, and was requested to advise this office by return mail as to its plans concerning the contract. A copy of this letter was furnished to Union Carbide Nuclear Company.

A considerable time has elapsed and we have not received a reply from the Operator or from Union Carbide Nuclear Company; therefore, as we are desirous of resolving the matters at the earliest possible date we are referring the matters to your office for consideration and appropriate action, or advice to this office as to how we shall proceed.

J. W. Townsend

J. W. Townsend

[illegible] Mar Centenbrance
Denver 2, Colorado
May 22, 1958

CERTIFIED MAIL

Mr. R. M. Gilbert
Pacific Uranium Mines Company
Suite 810, 192 South Ledesange Blvd.
Beverly Hills, California

Re: Docket No. [illegible] (Vanadium)
Contract No. [illegible]
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Dear Mr. Gilbert:

Reference is made to the letter dated March 31, 1958, from this office to Mr. T. S. Ary, Union Carbide Nuclear Company, a copy of which was forwarded to you at the time of mailing, pertaining to assignment of Contract No. [illegible].

As the matter now stands, you are in default of contract provisions, and since the contract cannot be maintained in an indefinite status, the matter in question must be resolved at an early date.

Please advise us by return mail as to your plans concerning the contract.

Very truly yours,

Original signed by
T. W. TOWNSEND

for E. H. Harshman
Acting Executive Officer
DMEA Field Team, Region III

cc: Mr. T. S. Ary
Assistant Manager of Exploration
Union Carbide Nuclear Company
P. O. Box 1069
Grand Junction, Colorado

JWT:prl
cc: Chem.Op.Comp. (2)
Harshman
Hasler
DMEA/Gr.Jct.
DMEA/DEC
Corres. File
Townsend
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED APR 4 1958
DATE | INITIAL | CODE
4/4 | C | 220
4/4 | [illegible] | 200
4/7 | [illegible] | 200

224 New Customhouse
Denver 2, Colorado
March 31, 1958

CERTIFIED MAIL

Mr. T. E. Ary
Assistant Manager of Exploration
Union Carbide Nuclear Company
P. O. Box 1049
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Dear Mr. Ary:

Receipt is acknowledged of your letter of March 27, 1958, with attached Assignment executed by Pacific Uranium Mines Company in favor of Union Carbide Corporation, pertaining to the assignment of DMEA Contract No. Idm-E926, and copy of a letter from Pacific Uranium Mines Company authorizing that all data in conjunction with the Contract be made available to Union Carbide Corporation.

You also advise that Union Carbide Corporation initiated exploration work as of the 28th of March, 1958 in compliance with provisions in Amendment No. 5 to the Contract.

As you were advised in the telephone conversation with this office, it will be necessary that the Assignment of the Contract from Pacific Uranium Mines Company to Union Carbide Corporation be formally approved by the Government before Union Carbide Corporation can be recognized as the Operator under the Contract.

In conjunction with the above, you are referred to the provisions in Article 2(d) of the contract form. Please supply this office with three signed copies, or photostats of the original signed instrument, whereby Union Carbide Corporation acquired the interests of Pacific Uranium Mines Company in the lands subordinated under the contract.

If Union Carbide Corporation has not acquired the interests of Pacific Uranium Mines Company in the lands subordinated under the contract, but is only performing the work under an operating agreement, please advise this office of such fact and forward us three true copies of the Operating Agreement.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

cc: Mr. N. M. Silbert
Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Blvd.
Beverly Hills, California
(via Certified Mail)

JWT:prl

cc: Chmn.Op.Comm.-2)
Harshman)
DMEA/DFC)
DMEA/Gr.Jct.)
Kaslar)
Townsend)
Royalty file,)
Region III)
Corres. file)
Chron.

w/copy of referred to material.

UNION CARBIDE NUCLEAR COMPANY • DIVISION OF UNION CARBIDE CORPORATION

P. O. BOX 1049, GRAND JUNCTION, COLORADO

March 27, 1958

DMEA
DEPARTMENT OF THE INTERIOR
MAR 31 1958
REGION III
DENVER, COLORADO

Mr. E. N. Harshman
Acting Executive Officer
Defense Minerals Exploration Administration
Room 224
New Custom House
Denver, Colorado

Dear Mr. Harshman:

I am enclosing a conformed copy of an Assignment from Pacific Uranium Mines Company to Union Carbide Corporation of the Contract #IDM-E-926, Docket # D.M.E.A. 3928, and a letter to your office concerning the authorization of Pacific Uranium Mines Company to allow Union Carbide personnel access to information relative to this Contract.

In response to an earlier phone call concerning this contract I would like to advise you that Union Carbide has initiated exploration work as of the 28th of March, 1958. In accordance with the Amendment #5 concerning the above Agreement this will keep in effect the Contract until September 30, 1958.

In the very near future a Union Carbide representative will call on you to discuss the provisions of the D.M.E.A. Contract and we will inform you later concerning our interest in continuing work on this property under the D.M.E.A. Contract provisions.

Very truly yours,

UNION CARBIDE NUCLEAR COMPANY

T. S. Ary

T. S. Ary
Assistant Manager of Exploration

TSA/ab

cc: Mr. J. F. Emerson
Mr. O. F. Holmgren
Mr. B. M. Silbert, Pacific Uranium Mines Company
Mr. A. J. Snook
Mr. W. L. Turner
Mr. Ray Wareham

PACIFIC URANIUM MINES COMPANY

SUITE 210

292 SOUTH LA CIENEGA BLVD.

BEVERLY HILLS, CALIFORNIA

OLEANDER 5-7771

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, receipt whereof is hereby acknowledged, the undersigned, PACIFIC URANIUM MINES COMPANY, a Nevada Corporation, does hereby transfer, set over, and assign to UNION CARBIDE CORPORATION, a New York Corporation, all of the right, title and interest of Pacific Uranium Mines Company in and to that certain Contract between the United States Department of the Interior, Defense Minerals Exploration Administration and Pacific Uranium Mines Company, being Contract No. Idm-E926, Docket No. DMEA 3928.

Dated at Beverly Hills, California, this 21st day of March, 1958.

PACIFIC URANIUM MINES COMPANY,
A Nevada Corporation,

By _____

Its President

STATE OF CALIFORNIA)
) ss.
COUNTY OF LOS ANGELES)

On this 21st day of March, 1958, before me, the undersigned, a Notary Public in and for said County and State, personally appeared BERNARD M. SILBERT, known to me to be the President of the Pacific Uranium Mines Company, the Corporation that executed the within instrument, known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

_____
Notary Public in and for said County and State.

My Commission Expires 11-11-58

DMEA
DEPARTMENT OF THE INTERIOR
MAR 31 1958
REGION III
DENVER, COLORADO

PACIFIC URANIUM MINES COMPANY
SUITE 210
282 SOUTH LA CIENEGA BLVD.
BEVERLY HILLS, CALIFORNIA
OLEANDER 5-7771

March 21, 1958

United States
Department of the Interior
Defense Minerals Exploration Administration
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Red, Ajax, and Wills claims)
Emery County, Utah

Gentlemen:

You are hereby authorized to make available to Union Carbide Corporation, its agents, servants, and/or representatives, any and all documents, data, and maps relating or in connection with the above referred to Contract.

Very truly yours,

PACIFIC URANIUM MINES COMPANY

By Bernard M. Gilbert
Bernard M. Gilbert,
Its President

BMGles

DMEA
DEPARTMENT OF THE INTERIOR
MAR 31 1958
REGION III
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 18 1957

DATE	INITIALS	CODE
11/18	gb	220
11/18	[illegible]	700

November 14, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium), Contract No. Idm-E926, Pacific Uranium Mines Company (Red, Ajax, and Wills claims), Emery County, Utah

Enclosed are the Government's and Audit copies of Amendment No. 5 to Contract No. Idm-E926, which was forwarded by your letter of October 28, 1957 for signature by the Operator.

The Operator inserted the word, "Mines," to complete the company name above the signature on the third page of the Amendment.

Copies of the Amendment have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

E. N. Harshman

E. N. Harshman

Enclosures

224 New Customhouse
Denver 2, Colorado

November 4, 1957

11/7 gb 220
800
200

Mr. R. L. Redmond, Chief Geologist
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Red, Ajax, and Wills claims)
Emery County, Utah

Dear Mr. Redmond:

Enclosed are the Government's, Audit, Finance Office, and Field Team copies of proposed Amendment No. 5 to Contract No. Idm-E926, which has been prepared in reference to your letter of October 4, 1957 and prior communications, to provide for an extension of the period within which the work shall be suspended to March 30, 1958 and extend the time fixed for completion of the work to September 30, 1958.

If the Amendment is satisfactory, all copies are to be signed by an official of Pacific Uranium Mines Company authorized to sign such an instrument, the signer's title inserted, the corporate seal affixed, and all copies promptly returned to this office. Upon receipt of the properly executed copies of the Amendment, the "Operator's Copy" will be forwarded to you.

Very truly yours,

Original signed by
J. W. TOWNSEND

for E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWT:prl

cc: Chmn. Op. Comm. (2)
Harshman
DMEA/DFC
Hasler
DMEA/Gr.Jct.
Corres. file
Townsend
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/24	Murphy	700
10/24	Ellis	700
10/25	Talbert	800
10/25	GCS	1300
10/28	Johnson	110
		~~[illegible]~~
		~~[illegible]~~
10/28	gb	220
		708

OCT 28 1957

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMA-3920 (Uranium)
Contract No. Idm-1926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. Harshman:

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 recommendations made in your memorandum of October 9, 1957.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JB)

Enclosures

APPROVED:

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

W. P. Williams (JB)
Member, Geological Survey

FMMurphy/izm 10-24-57
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/16	Murphy	700
"	Ellis	700
		140

DMEA-3928

INTERIOR DEPT.
OCT 16 1957
SOLICITOR

October 16, 1957

Memorandum

To: Associate Solicitor,
Division of Raw Materials

From: Ernest Wm. Ellis, Director
Division of Rare and Miscellaneous Metals

Subject: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Emery County, Utah

Will you kindly prepare an Amendment No. 5 to the subject contract providing a recess period starting August 30, 1956, and ending March 30, 1958; extending the completion date to September 30, 1958; and increasing the royalty pay-back period to 12 years.

Amendment No. 4 provided a recess period to September 30, 1957; however, the Operator did not resume work and requested additional recess and later completion time.

The subject contract was certified as a discovery on May 8, 1957.

In the proposed Amendment No. 5 provision should be made that if work is not resumed March 30, 1958, and/or if it is not completed by September 30, 1958, the contract shall automatically be terminated.

Ernest Wm. Ellis

Ernest Wm. Ellis

FMMurphy/gla
cc to: Mr. Murphy

RECEIVED
OCT 17 1957
ASS'T. SOLICITOR
MINERAL RESOURCES

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED 1957
DATE CODE
10/15 C 220
11 FMM 130
700

Memorandum

October 9, 1957

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium), Contract No. Idm-E926, Pacific Uranium Mines Company (Red, Ajax, and Wills claims), Emery County, Utah

Enclosed is the following material pertaining to an amendment to the subject contract:

1. The original and two copies of the Operator's letter of October 4, 1957.

2. The original and two copies of a joint memorandum, dated October 7, 1957, from J. William Hasler, Geologist, Geological Survey, and M. H. Salsbury, Mining Engineer, Bureau of Mines.

The Operator requests six months' extension of the dates presently fixed on or before which work is to be resumed and to be completed.

As the extensions requested are entirely for the convenience of the Operator, and since the Operator is presently in default of the contract for not having resumed work by September 30, 1957, as provided for by Amendment No. 4, the granting of further extensions appears to involve DMEA policy; consequently, we are of the opinion that an amendment to authorize the requested extensions should be prepared and executed by the Washington Office.

The matter is forwarded for your consideration and appropriate action, with the recommendations that the requested extensions be granted, but that the amendment contain provision for automatic termination of the Government's obligation under the contract and contain provisions of a psuedo certification, if work is not resumed on or before the extended date fixed for the end of suspension of operations.

E. N. Harshman

E. N. Harshman

Certified
May 8, 1957
FMM

IN REPLY REFER TO:
MINERAL DEPOSITS

DMEA
RECEIVED
OCT 8 1957
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

DMEA
OCT 9 - 1957
REGION III
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 360
Grand Junction, Colo.

October 7, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 14 195

DATE		CODE

Memorandum

To: Acting Executive Officer, DMEA Field Team, Region III

From: J. William Hasler
M. H. Salsbury

Subject: DMEA docket 3928 (Uranium), contract No. Idm-E 926, Pacific Uranium Mines Company (Red, Ajax, and Willis claims), Emery County, Utah.

Mr. Edward Clark, of Four Corners Uranium Corporation, informed us on September 30, 1957, that his company was negotiating with Pacific Uranium Mines Company relative to obtaining a lease or option on the above-mentioned claims.

Mr. Clark asked if the present DMEA contract No. Idm-E 926 could be transferred to them, if lease or option terms could be made attractive enough to them to warrant their securing the lease. He was informed that should the transaction be completed, the present DMEA contract could probably be transferred to them for completion, provided the Washington office, DMEA, considered the lease or purchase terms satisfactory from the Government's viewpoint.

On several occasions it has been brought to our attention that the Pacific Uranium Mines Company had made numerous efforts to sell the property, thus their requests to extend the time of starting the next phase and subsequently the completion of the contract, rather than having completed the work several months ago.

It is our opinion that the reasons cited in Mr. Redmond's letter to the Acting Executive Officer are purely secondary.

It was mentioned to Mr. Clark of Four Corners Uranium Exploration Company that the amended date for resumption of operations was September 30. He apparently called the Pacific Uranium Company and informed them of it, as their geologist, Mr. John Volgamore, called in very shortly afterward and asked our advice. We then informed him to correspond with the Executive Officer regarding the matter.

DMEA 3928 10/7/57

It is our opinion that another amendment might be granted with the stipulation that if work does not commence under the terms of the contract by the designated date, that the contract be automatically terminated with a certification of discovery.

Dr. Clark was in the office Friday afternoon, October 4, 1957, and discussed possible completion of the DMEA contract and stated that the Pacific Uranium Mines Company was considering more reasonable terms.

J. William Hasler
J. William Hasler,
Geologist, USGS

M. H. Salsbury,
Mining Engineer, USBM

JWH/mlr

PACIFIC URANIUM MINES
1924 White Avenue
GRAND JUNCTION, COLORADO
Phone
CHapel 2-7261—CHapel 2-7262

DMEA
DEPARTMENT OF THE INTERIOR
OCT 7 - 1957
REGION III
DENVER, COLORADO

October 4, 1957

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

RE: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Co.
(Red, Ajax & Wills Claims)
Emery County, Utah

Dear Mr. Harshman:

In reply to your letter of October 3, 1957 in which you request clarification of our time extension request.

We are requesting an extension of the period fixed for suspension of work and a like period for the completion of the work.

As you know, physical drilling conditions are extremely difficult in the Green River Area during the winter months due to freezing weather. It was my thought that since we will be delayed an indefinate period in commencing the remainder of our work on this loan that we would probably be working during the winter months and need a longer period to finish the planned drilling.

The indefinate delay refered to in commencing the operation needs some explanation. We have gone into a joint venture with Kerr McGee Oil Company in the formation of Kermac Neclear Corporation; our participation in this venture is determined by our reserves in the Ambrosia Lake Area so at present all of our personel are at work on this project. This work in which we are engaged may be finished in one month or it might take 3 more months. Thereby we are requesting a 6 month extension of the period fixed for suspension of work and the same time extension for the completion date of the work. The requested extensions should allow for any exigency that might occur.

In other words we would like to start the work no sooner than March 30, 1958 and completed the work no later than September 30, 1958.

Enc: Original & 5 cc

Sincerely,

R. L. Redmond

R. L. Redmond
Chief Geologist
Pacific Uranium Mines Co.

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE
10/7	C	220
10/7		800
"		760

224 New Customhouse
Denver 2, Colorado

October 3, 1957

Mr. R. L. Redmond, Chief Geologist
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Red, Ajax, and Wills claims)
Emery County, Utah

Dear Mr. Redmond:

Reference is made to your letter of September 30, 1957, wherein you request a six-months' extension of Contract No. Idm-E926.

Amendment No. 4 to the Contract, executed March 18, 1957, provides for suspension of operations to end not later than September 30, 1957, and extends the date fixed in Article 3, on or before which work shall be completed, to December 9, 1957.

Since the Contract has a considerable period yet to run, we do not understand your request for a further six-months' extension at this time. Therefore, please clarify the matter and advise whether it is an extension of the period fixed for suspension of work or extension of the date fixed for completion of the work that you desire, and the time extent of each if both are involved.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWT:prl

cc: Chmn.Op.Comm.-2)
Harshman)
DMEA/DFC-Belser)
DMEA/Gr.Jct.)
Hasler)
Corres. file)
Townsend
Chron.

w/copy of Operator's letter of September 30.

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE

DMEA
DEPARTMENT OF THE INTERIOR
OCT 2 - 1957
REGION III
DENVER, COLORADO

September 30, 1957

Mr. D. H. Harshman
Acting Executive Officer
DMEA Field Team, Region III

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Co.
(Red, Ajax & Wills Claims)
Emery County, Utah

Dear Mr. Harshman;

Mr. James Townsend was contacted by phone September 30, 1957 by us with a request for another 6 month time extension of our loan. This letter is a formal request for the extension.

During the past few months our organization has been completely "tied up" with our holdings and operations in the Ambrosia Lake Area, New Mexico. We have about finished with our work there and feel that we can now devote our attention to further exploration of our Green River Claims in preparation for starting an operation in this area.

I am very sorry that we did not attend to this matter before now. We will deeply appreciate any assistance you may be able to give us in this matter.

RLR/jhv

Enc; Orig. & 5 cc

Sincerely,

R. L. Redmond
Chief Geologist
Pacific Uranium Mines

COPY

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 15 1957

DATE	INITIALS	CODE

224 New Customhouse
Denver 2, Colorado

August 13, 1957

Lyman P. Brown and Catherine Brown
c/o Ray ~~Graham~~ Underhill
General Delivery
Ferron, Utah

Re: Docket DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Green River Claims)
Emery County, Utah

Dear Mr. and Mrs. Brown:

Enclosed is a copy of a certification of discovery or development, with copy of covering letter dated May 9, 1957, to the Operator, which has been issued pursuant to the terms of the above-cited contract.

This correspondence relates to the owner's Consent to Lien signed by you on February 17, 1956.

Also enclosed is a copy of our letter dated July 23, 1957, to the Operator, which will explain the reason for Washington's correspondence being delayed in transit.

We would appreciate your acknowledging receipt of this letter.

Very truly yours,

E. N. Harshman

E. N. Harshman
Acting Executive Officer

Enclosures
MHM:eh
cc: Ch. Op. Comm. (2))
Corres. E 926) W/cy of
Townsend) Related Corres.
Royalty File E 926
DMEA/DFC (2)
Harshman
Marshall
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA

DMEA
DEPARTMENT OF THE INTERIOR
RECEIVED
AUG 12 1957
REGION III
DENVER, COLORADO
DATE

July 23, 1957

8/15 G 220
8/15 EEG 800
~~8/16 FMM 200~~

Mr. A. E. Hurley, President
Pacific Uranium Mines Company
Suite 210, 292 S. LaCienega Boulevard
Beverly Hills, California

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co.
(Green River Claims)
Emery County, Utah

Dear Mr. Hurley:

In accordance with your reply to our letter of May 13, 1957, we addressed correspondence destined for Lyman P. Brown and Catherine Brown, Ferron, Utah.

The postmaster at Ferron, Utah, has returned the letter for the reasons noted on the enclosed envelope.

We would appreciate your making inquiry as to the correct mailing address of these two persons and advising this office.

Very truly yours,

W. H. King
Executive Officer
DMEA Field Team, Region III

All matters concerning this should be addressed to Ray Wareham Box 40 Gen. Del. Ferron, Utah

PHOTOCOPY TO
Forward
WC-2
CORRESP.
TOWNSEND

[redacted]
[redacted]

July [redacted], 1957

7/26 C 220
7/26 800
~~PMM 700~~

Mr. A. B. [redacted],
[redacted]
[redacted]
[redacted]
[redacted]

Re: [redacted]
[redacted]
[redacted]
[redacted]
[redacted]

Dear Mr. [redacted]:

In connection with your reply to our letter of May 13, 1957, we attached correspondence received from [redacted] D. [redacted] and [redacted], [redacted], [redacted].

The postmaster at [redacted], [redacted], has returned the letter for the reason noted on the enclosed envelope.

We would appreciate your [redacted] loyalty as to the current mailing address of these two persons and [redacted] this action.

Very truly yours,

Original signed by
W. H. KING

W. H. King
[redacted]
[redacted], [redacted]

Enclosure
WHK:ch
cc: Corres. File B926
Royalty File B926
[redacted]/[redacted] (2)
[redacted]
[redacted]
[redacted]
[redacted].

W (2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7-17	Murphy Cy FMC	700
7-17	Kuard	700
7/17	Martin	130
7/17	Johnson	110
"	Bartlett	100
7/18	C	220
		700

JUL 18 1957

Mr. William H. King
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. King:

Referring to Mr. E. N. Harshman's memorandum of May 20, 1957, we are returning the original letter, dated May 9, 1957, to Lyman P. Brown and Catherine Brown, with copies of letter to the subject Operator and certification, which you forwarded to Ferron, Utah, in accordance with the address supplied by the Pacific Uranium Mines Company. This letter was returned to this office by the Post Office because the addressees are unknown.

It is suggested that you try to secure from the Operator the correct address to which this communication may be forwarded, and advise this office if you are successful in effecting delivery.

Sincerely yours,

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

Enclosures

APPROVED:

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

Thor H. Kiilsgaard
Member, Geological Survey (JHB)

FMMurphy/GLA/izm 7-17-57
cc to: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado
May 20, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 22 1957

DATE	INITIALS	CODE
5/23	C	220
		700

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3928 (Uranium), Contract Idm-E926, Pacific Uranium Mines Company (Green River Claims), Emery County, Utah

As requested by your letter of May 9, 1957, we return the Washington Office's copies of correspondence to the owners of the property included under the subject contract.

Also enclosed is a copy of our letter of May 13, 1957 to the Operator which provides the basis for our addressing all correspondence to Ferron, Utah.

E. N. Harshman

E. N. Harshman

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

DMEA
DEPARTMENT OF THE INTERIOR
MAY 20 1957
REGION III
DENVER, COLORADO

May 13, 1957

OFFICIAL FILE COPY
DM
RECEIVED MAY 22 1957

DATE	INITIALS	CODE

Mr. A. E. Hurley, President
Pacific Uranium Mines Company
Suite 210, 292 S. LaCienega Boulevard
Beverly Hills, California

Re: Docket DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co.
(Green River claims)
Emery County, Utah

Dear Mr. Hurley:

That we may forward correspondence concerning the recent certification issued on the captioned property to the owners involved, please provide this office with the mailing addresses of the following:

Ray Wareham and Maribelle B. Wareham
Ervin Olsen and Rhoda W. Olsen
Ray Wareham, Attorney-in-Fact for
Earnest C. Wareham and
Jeanne C. Wareham
Lyman P. Brown and Catherine Brown

All addresses are simply "Ferron, Utah"

Your early attention to this matter will be greatly appreciated.

Very truly yours,

E. N. Harshman

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

Corresp.

224 New Customhouse
Denver 2, Colorado

May 13, 1957

OFFICIAL FILE COPY
RECEIVED
DATE 5/16 C 220
5/16 800
~~5/19 Mighy 700~~

Mr. A. E. Hurley, President
Pacific Uranium Mines Company
Suite 210, 292 S. LaCienega Boulevard
Beverly Hills, California

Re: Docket DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co.
(Green River claims)
Emery County, Utah

Dear Mr. Hurley:

That we may forward correspondence concerning the recent certification issued on the captioned property to the owners involved, please provide this office with the mailing addresses of the following:

Ray Wareham and Maribelle B. Wareham
Ervin Olsen and Rhoda W. Olsen
Ray Wareham, Attorney-in-Fact for
Earnest C. Wareham and
Jeanne C. Wareham
Lyman P. Brown and Catherine Brown

Your early attention to this matter will be greatly appreciated.

Very truly yours,

L. M. Harshman
Acting Executive Officer
DMEA Field Team, Region III

MHM:jy
cc: Chm. Op. Comm. (2)
Konselman (2)
Harshman
Hasler
Townsend
Marshall
Contract File E926
Corresp. File
Royalty File
Chron.

w/copy of Chm's.
ltr. dtd. 5-9-57

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/6 4/25	Murphy	700
5/6 4/25	Ellis	700
	Rubin	140
"Appd. Sol. Off."	Hoffmeyer	
5-8	Chambers	800
5/8	Selfridge	130
	Lamb	
	Kilsgaard	
5/8	Johnson	110
	Mittendorf	100
5/9		220
		700

MAY - 9 1957

Mr. A. E. Hurley, President
Pacific Uranium Mines Company
Suite 210, 292 South LaCienega Boulevard
Beverly Hills, California

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Green River Claims
Emery County, Utah

Dear Mr.Hurley:

Enclosed is a "Certification by the United States of America of a Discovery or Development Under an Exploration Project Contract." This certification covers all the land described in Article 2 of the subject contract.

By the terms of the Exploration Project Contract, as amended, and of the certification, all minerals mined or produced from March 9, 1956, to March 9, 1967, are subject to the Government's percentage royalty as set forth in the contract until the amount contributed by the Government is repaid.

Payments should be made to Mr. E. N. Harshman, Acting Executive Officer, DMEA Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado. Checks should be payable to the Defense Minerals Exploration Administration. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward the check directly to the Acting Executive Officer. Any bonus payments or allowances received by you from the sale of ore are considered to be a part of the purchase price to which the Government's royalty applies. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges, certified to be correct by the purchaser.

You are requested to notify Mr. Harshman of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Also, if production ceases at any time for an extended period, please notify Mr. Harshman at six-month intervals that no production has been made, when that is the case.

Sincerely yours,

C. O. Mittendorf
Administrator

cc to:
Ervin Olsen and Rhoda W. Olsen
Ray Wareham and Maribelle B. Wareham
Ray Wareham who signed for Earnest C. Wareham and JeanneC. Wareham under a Power of Attorney
Lyman P. Brown and Catherine Brown

F. M. Murphy
T. H. Kilsgaard, Rm. 5224
Field Team, Region III (2)
Contract Adm.& Audit Division
Jesse C. Johnson, Director, Div. of Raw Materials, AEC

FMMurphy/gla 4/25/57
cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/6 ~~4/25~~	Murphy	700
5/6	Ellis	700
5-8	Chambers	~~110~~
		~~100~~
5/8	Selfridge	130
	Lamb	
5/8	Johnson	110
	Mittendorf	100
		220
		700
	Kiilsgaard	

MAY - 9 1957

Mr. Jesse C. Johnson
Director, Division of Raw Materials
Atomic Energy Commission
Room 800
1717 H Street, N. W.
Washington 25, D. C.

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. Johnson:

I am enclosing one copy of a certification of discovery or development relating to the subject exploration contract.

The contract was dated March 9, 1956, with Government participation to the extent of 75 percent, in an exploration project estimated to cost $73,840.00, (Government share $55,380.00). Project work under the contract has not been completed, therefore, the exact total cost of the project and the total amount of Government participation will not be known until such work is finished.

We will supply additional information for your records upon receipt of the final reports.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosure

FMMurphy/gla
4-25-57
cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5 224
Contract Adm. & Audit Division
F. M. Murphy
DMEA Field Team, Region III (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/6	Murphy	700
5/6	Ellis	700
		110
5-8	Chambers	[illegible]
5/8	Selfridge	130
5/8	Johnson	110
"	Whitenberg	100
		270
		700

MAY - 9 1957

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Rdm-5926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. Harshman:

Enclosed for your files are two copies each of a certification of discovery or development issued on the subject property and the covering letter to the Operator.

We find that the addresses of the owners have not been supplied this office. We are, therefore, attaching four date-stamped original letters, with distribution copies, to the following:

Ray Marcham and Maribelle B. Marcham
Ervin Olsen and Rhoda W. Olsen
Ray Marcham, Attorney-in-Fact for
Earnest C. Marcham and
Jeanne C. Marcham
Lyman P. Brown and Catherine Brown

You are requested to insert the correct address in the original and all copies of each letter, forward the original to the owner, and return all copies, except those indicated for the Field Team, to this office for distribution.

Sincerely yours,

George C. Selfridge (By esf)

Chairman, Operating Committee

FMMurphy/gla
4-25-57

Enclosures

Frank D. Lamb (By esf)

Member, Bureau of Mines

Thor H. Kiilsgaard (By esf)

Member, Geological Survey

cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Contract Adm. & Audit Division
F. M. Murphy

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/6 4/25	Murphy	700
5/6 4/25	Ellis	700
		140
5-8	Chapman	800
5/8	Selfridge	130
	Lamb	
5/8	Johnson	110
"	Mittendorf	100
5/23		220
		700
	Kilsgaard	

MAY - 9 1957

Ray Wareham and Maribelle D. Wareham
Ferron, Utah

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. and Mrs. Wareham:

Enclosed is a copy of a certification of discovery or development, with copy of covering letter to the Operator, which has been issued pursuant to the terms of the above-cited contract.

This correspondence relates to the Consent to Lien signed by you on February 17, 1956. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

C. D. Mittendorf (for)

Administrator

Enclosures

FMMurphy/gla
4/25/57
cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Field Team, Region III (2)
Contract Adm. & Audit Division
F. M. Murphy

DMEA
DEPARTMENT OF THE INTERIOR
MAY 13 1957
REGION III
DENVER, COLORADO

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/25	Murphy	700
4/25	Ellis	700
5-8	Chamber	800
		140
5/8	Selfridge	130
	Lamb	
5/8	Johnson	110
	Mittendorf	100
		220
		700
	Culogard	

MAY - 9 1957

Lyman P. Brown and Catherine Brown
Ferron, Utah

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. and Mrs. Brown:

Enclosed is a copy of a certification of discovery or development, with copy of covering letter to the Operator, which has been issued pursuant to the terms of the above-cited contract.

This correspondence relates to the Consent to Lien signed by you on February 17, 1956. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

E. O. Mittendorf

Administrator

Enclosures

FMMurphy/gla
4-25-57
cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Field Team, Region III (2)
Contract Adm. & Audit Division
F. M. Murphy

DMEA
DEPARTMENT OF THE INTERIOR
MAY 13 1957
REGION III
DENVER, COLORADO

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/6 ~~4/25~~	Murphy	700
5/6	Ellis	700
		140
5-8	Lamb	800
5/8	Selbridge	130
	Lamb	
	Kiilsgaard	
5/8	Johnson	110
	Mittendorf	100
		220
		700

MAY - 9 1957

Mr. Ray Wareham
Attorney-in-Fact for
Earnest C. Wareham and Jeanne C. Wareham
Ferron, Utah

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. Wareham:

Enclosed is a copy of a certification of discovery or development, with copy of covering letter to the Operator, which has been issued pursuant to the terms of the above-cited contract.

This correspondence relates to the Consent to Lien signed by you on February 17, 1956, on behalf of Earnest C. Wareham and Jeanne C. Wareham. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosures

FMMurphy/gla
4/25/57
cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Field Team, Region III (2)
Contract Adm. & Audit Division
F. M. Murphy

DMEA
DEPARTMENT OF THE INTERIOR
MAY 13 1957
REGION III
DENVER, COLORADO

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/6 4/25	Murphy	700
5/6	Elis	700
		140
5-8	Chapman	800
5/8	Selfridge	130
	Lamb	
	Kilsgaard	
5/8	Johnson	110
	Hittendorf	100
		220
		700

MAY - 9 1957

Ervin Olsen and Rhoda W. Olsen
Ferron, Utah

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. and Mrs. Olsen:

Enclosed is a copy of a certification of discovery or development, with copy of covering letter to the Operator, which has been issued pursuant to the terms of the above-cited contract.

This correspondence relates to the Consent to Lien signed by you on February 17, 1956. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

C. O. Hittendorf (for)

Administrator

DMEA
DEPARTMENT OF THE INTERIOR
MAY 13 1957
REGION III
DENVER, COLORADO

Enclosures

FMMurphy/gla
4/25/57
cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D.Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Field Team, Region III (2)
Contract Adm.& Audit Division
F. M. Murphy

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

April 18, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium), Contract No. Idm-E926, Pacific Uranium Mines Company (Red, Ajax, and Wills claims), Emery County, Utah

Enclosed are the Government's, Division, and Audit copies of Amendment No. 4 to Contract No. Idm-E926, which were forwarded by your letter of March 19, 1957, for signature by the Operator.

Also enclosed are four copies of the Operator's letter of March 11, 1957, pertaining to the Amendment.

Copies of the Amendment have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

E. N. Harshman

E. N. Harshman

Enclosures

OFFICIAL FILE COPY
DMEA
RECEIVED APR 22 1957

DATE	INITIALS	CODE
4/22	C	220
		700

DMEA
DEPARTMENT OF THE INTERIOR
MAR 12 1957
REGION III
DENVER, COLORADO

March 11, 1957

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
(Red, Ajax, and Wills claims)
Emery County, Utah

Dear Mr. Harshman:

In reference to your letter of March 6, 1957 requesting information on work done under DMEA contract 3928, we are forwarding the following data.

1. The last work performed on the property was completed on August 29, 1956.
2. The date on or before which work will be resumed is September 30, 1957.

Sincerely Yours,

RLR/jhv

ENC. Orig. & 5 cc

Robert L. Redmond

Robert L. Redmond
Chief Geologist
Pacific Uranium Mines Co.

OFFICIAL FILE COPY
DMEA
RECEIVED APR 22 1957

DATE	INITIALS	CODE

COPY

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
3-18	Murphy	700
3-18	Ellis	700
3-18	Champlin	800
3/18	Selfridge	130
"	Stevens	110
"	Mattenty	100
320		220

MAR 19 1957

Mr. E. N. Harshman, Acting
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. Harshman:

Enclosed are the original and five copies of a proposed Amendment No. 4 to the captioned contract, signed by the Administrator for the Government. Also enclosed for Field Team use are two extra copies of the proposed amendment.

The amendment has been prepared in accordance with the recommendations made in your memorandum of February 27 and teletype of March 12, 1957.

If you and the Operator find the proposed amendment in order, have a duly authorized representative of the company sign the original and five copies; and thereafter, kindly distribute the copies in the usual manner.

The certification, mentioned in our teletype of March 5, 1957, will be issued shortly.

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 3-18-57
cc to: & Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
JKratchman, AEC

8623

OFFICIAL FILE COPY DMEA RECEIVED MAR 12 1957		
DATE	INITIALS	CODE
3/12	C	220
		225

N 235 BUR MINES 3-12-57 11-14

RMAN OPEA ATING COMMITTEE DMEA

REURTT 3-5-57 DOCKT XX DOCKET DMEA 3928, CONTRACT IDM-E926, PACIFIC URANIUM MINES CO., PROPOSED AMENDMENT. OPERATOR ADVISES LAST WORK PERFORMED UNDER CONTRACT ON AUGUST 29, 1956 AND THAT WORK WILL BE RESUMED ON OR BEFORE SEPTEMBER 30, 1957. THEREFORE IT APPEARS THAT SUSPENSION OF OPERATIONS SHOULD BE INCORPORATED IN THE AMENDMENT.

E N HARSHMAN ACTING EXECUTIVE OFFICER

Denver Colorado

MAR 12 1 43 PM '57
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

224 New Customhouse
Denver 2, Colorado

March 6, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 11 1957

DATE		CODE
3/12	C	220
3/12		200
		225

VIA AIR MAIL

Mr. Robert L. Redmond, Chief Geologist
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. Idm-3926
Pacific Uranium Mines Company
(Red, Ajax, and Wills claims)
Emery County, Utah

Dear Mr. Redmond:

In reference to your request of February 25, 1957 for six months extension of the date fixed for completion of the project work, we have been advised by the Washington Office, DMEA, that an appropriate amendment will be prepared to extend the completion date as you request.

In conjunction with the matter, please advise the following by return mail:

1. The date the last work was performed under the Contract.

2. The date on or before which work will be resumed.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWT:prl

cc: Chairman, Op. Comm. (2)
Harshman
Shaw (2)
Hasler
Townsend
Corres. file
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3-5	Murphy	700
3-5	Ellis	700
3/5	Selfridge	130
"	Johnson	110
"	Chittenden	100
3-5	C	225

MAR - 5 1957

Department of the Interior

DMEA

14X4401(01) Revolving Fund,
Defense Production Act,
Interior(Allocated Working Fund to the
Office of the Secy.)

T E L E T Y P E

D. N. HARMAN, ACTING
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION 3
224 NEW CUSTOMHOUSE BUILDING
DENVER, COLORADO

REFERENCE FEBRUARY 27, DMEA 3928, CONTRACT Idm-L 926, PACIFIC URANIUM MINES COMPANY, EMERY COUNTY, UTAH. WE WILL PREPARE AMENDMENT EXTENDING COMPLETION DATE OF CONTRACT. TO PROTECT THE GOVERNMENT'S INTEREST WE WILL ALSO ISSUE A CERTIFICATION OF DISCOVERY OR DEVELOPMENT BASED ON RESULTS OF DRILLING COMPLETED. IF PROPERTY IS SOLD TO FOUR CORNERS URANIUM CORPORATION, SUBJECT TO GOVERNMENT APPROVAL, THE NEW OWNER COULD COMPLETE THE STAGE 3 WORK.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE

FMMurphy/izm 3-5-57
cc to: Code 700
Mr. Murphy
Admr.'s Reading File
Confirmation Copy to Reg. 3
Operating Committee
THKiilsgaard, 5224 w/cc ofReg. 3's memo of Feb. 18 from Byers & Robertson
JECrawford, 3643 w/cc "
JKratchman, AEC

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
224 New Customhouse
Denver 2, Colorado

February 27, 1957

AIR MAIL

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 1 1957

DATE	INITIALS	CODE
3-1	C	220
		225

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3928 (Uranium), Contract No. Idm-E926 Pacific Uranium Mines Company (Red, Ajax, and Wills claims), Emery County, Utah

Enclosed is the following material relative to operations under the subject Contract and request for a six-months extension of the date fixed for completion of the project work:

1. The original and three copies of a joint memorandum report, dated February 18, 1957, from F. M. Byers, Jr., Geologist, Geological Survey, and H. F. Robertson, Mining Engineer, Bureau of Mines.

2. The original and three copies of a letter, dated February 25, 1957, from Robert L. Redmond, the Operator's representative.

Mr. Redmond requests a six-months extension of the period fixed for completion of the project work, and apparently the time is to be used to complete arrangements for the disposal of the Company's interest in the property involved with Contract No. Idm-E926.

Under the circumstances, inasmuch as the extension of time is entirely for the interest of the Operator and may be considered to involve DMEA policy, we will appreciate advice from you by teletype as to how we should proceed in the matter.

For information regarding the extent of discovery or development as a result of the drilling performed to date, you are referred to a joint memorandum dated November 7, 1956, from F. M. Byers, Jr. and M. H. Salsbury, which was forwarded to you by our memorandum of January 9, 1957.

Preparation of an amendment to provide for extension of the date fixed for the completion of the project work should also include provisions for suspension of operations, the details for which will be obtained after advice from you has been received.

E. N. Harshman

E. N. Harshman

Encls.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 360
Grand Junction, Colorado

IN REPLY REFER TO:
MINERAL DEPOSITS

DMEA
RECEIVED
FEB 19 1957
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

February 18, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman
J. F. Shark
J. William Hasler

From: F. M. Byers, Jr.,
H. F. Robertson

Subject: DMEA Docket 3928 (Uranium) contract Idm-E 926, Pacific Uranium Mines Company, Green River claims, Emery County, Utah.

We have conferred with Mr. Robert L. Redmond, chief geologist, Pacific Uranium Mines Company. He informs us that Pacific is about to sell their interest in their Green River claims to Four Corners Uranium Corporation; the closing date of the sale is February 20. This date was also confirmed by Dr. Edward L. Clark, vice-president of Four Corners, during our recent examination of their property for DMEA (Docket 4584). Dr. Clark, however, said that Four Corners and Pacific had not quite agreed on the purchase price, but were within $25,000 of one another's prices.

Mr. Redmond of Pacific did not seem inclined to do anything further regarding DMEA, including keeping the Executive Officer informed. Dr. Clark said that Four Corners Uranium, however, would be anxious to complete stage III under the present contract, if they buy the Pacific property. Therefore, you may expect to hear from either Pacific or Four Corners within a very few days after February 20.

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 1 1957

DATE	INITIALS	CODE
	FMB/mlr	

DMEA
DEPARTMENT OF THE INTERIOR
FEB 20 1957
REGION III
DENVER, COLORADO

F. M. Byers, Jr.
F. M. Byers, Jr.,
Geological Survey

H. F. Robertson
H. F. Robertson,
Bureau of Mines

EMH
T

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone
CHapel 2-7261—CHapel 2-7262

Feburary 25, 1957

DMEA
DEPARTMENT OF THE INTERIOR
FEB 26 1957
REGION III
DENVER, COLORADO

Mr. W.M.Eraver
Executive Officer, DMEA
Field Team, RegionIII

Re: Docket DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co.
(Green River Claims)
Emery County, Utah.

Dear Mr. Traver:

The completion date for our drilling work under contract Idm-E926 is March 1, 1957, we are unable to meet this date because of reorganization within the company and the reduction of the technical staff to one person.

We have extensive holdings in the Ambrosia Lake area of New Mexico and I have had to devote all of my time and efforts to the operations we are conducting in this area.

I would like to request that we be granted a 6 month time extension for the completion of our Green River contract. I feel certain that we will again be in full operation during the next 6 month period.

Yours very truly,

Robert L. Redmond

Robert L. Redmond

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 1 1957

DATE	INITIALS	CODE

224 New Customhouse
Denver 2, Colorado

February 13, 1957

OFFICIAL FILE COPY
D.M.E.A.
RECEIVED FEB 1957

DATE	INITIALS	CODE
2-15	C	220
2/18		800
		225

Mr. Robert L. Redmond, Chief Geologist
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
(Green River claims)
Emery County, Utah

Dear Mr. Redmond:

The completion date for all authorized work under Contract Idm-E926 is March 1, 1957. If, for reasons beyond your control, the contract work cannot be completed by March 1, 1957, you should immediately submit to this office for consideration by the Government, the original and five copies of a request for an extension of the completion date for such specific additional time as will be required to complete all of the authorized contract work.

Yours very truly,

Original signed by
W. M. TRAVER

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

JDC:hh

cc:
Chmm. Op. Comm. (2)
Harshman
Shaw (2)
Hasler
Townsend
Chron.

Corres. E926

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

January 10, 1957

Memorandum

To: Hazel Berry, Operating Committee

From: Grace L. Ault, Rare and Miscellaneous Metals Division

Subject: Amendment to contract
Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Pacific Uranium Mines Company

Mr. Murphy has reviewed and approved Amendment No. 3, dated November 20, 1956, which was executed by the Acting Executive Officer, Region III, and the Operator, and has indicated that no additional review is required by the Legal Division.

/s/ Grace L. Ault

Grace L. Ault

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

224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 14 1957

DATE	INITIALS	CODE
1-15	G	220
	G.	225
January	9, 1957	

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium), Contract No. Idm-E926, Pacific Uranium Mines Company (Red, Ajax, and Wills claims), Emery County, Utah.

In the memorandum to you from this office on the above subject, dated January 8, 1957, the Contract number was shown as E-929 instead of E-926.

Will you kindly change your copies of the memorandum to show the correct Contract Number, Idm-E926.

E. N. Harshman

E. N. Harshman

cw

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

1/11 cw 225

224 New Customhouse
Denver 2, Colorado

January 8, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3928 (Uranium), Contract No. Idm-E929, Pacific Uranium Mines Company (Red, Ajax, and Wills claims), Emery County, Utah

Enclosed are the following instruments pertaining to operations under the subject Contract:

1. The original and two copies of Amendment No. 3 which has been executed to modify the description of work to be performed under Stage III and extend the date fixed for completion of the work to March 1, 1957.

2. Four copies of confirmation of project work approval issued by the DMEA Field Team, Region III.

3. Two sets, comprised of several letters from the Operator, pertaining to Amendment No. 3 and the work approval.

4. Four copies of a joint memorandum report, dated November 7, 1956, from F. M. Byers, Jr., Geologist, Geological Survey, and M. H. Salsbury, Mining Engineer, Bureau of Mines, relative to requested Amendment No. 3 and the work approval.

Copies of the Amendment and the work approval have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

W. M. Traver

W. M. Traver

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 150
Grand Junction, Colorado

MINERAL DEPOSITS
DMEA
RECEIVED
NOV 13 1956
GEOLOGICAL SURVEY
DENVER, COLORADO

November 7, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Hartman
J. F. Shaw
J. William Hasler

From: T. M. Eyers, Jr.,
M. H. Salisbury

Subject: Interim report, docket No. DMEA 3928 (Uranium), contract Idm-E 326, Pacific Uranium Mines Company, (Red, Ajax, and Wills claims). Recommendations for stage III drilling and amendments to contract.

The operator has requested, on October 12, 1956, authorization to drill 25 stage III holes as offsets to ore-bearing or mineralized stage I or II holes. He also requested a 30-day extension and three additional amendments to the contract; namely, to drill two offsets to company ore hole G-16, to offset stage III holes with additional "secondary" stage III offset holes, and finally to transfer 803 feet of unused core footage from stage II to stage III. In a memorandum dated October 19, the Field Team advised Mr. Hasler that the latter two requests for amendments would have to be decided in Washington, D. C., and that they should be deferred until drilling had been completed under the contract.

The purpose of this memorandum is to recommend a stage III program, including two amendments: one to extend the contract period and the other to offset company holes. If these two amendments can be acted upon in conjunction with the work approval of stage III drilling, we believe the DMEA contract can be completed without further amendment.

The assay and probe results of mineralized stage II DMEA holes and certain critical company holes are given in table 1.

The location of 22 stage III holes recommended by the examining team are shown on figure 1 and listed below:

Holes to be offset	Stage III offset holes
D-6	E-3, E-4, E-5, and E-6
D-9	E-7, E-9, and E-12
D-11	E-8, E-10, and E-13
D-12	E-14* and E-16*
M-13	E-17, E-20, E-21, and E-25
D-16	E-18, E-22, E-26
M-14	E-19 and E-27
D-19	E-28

Three holes proposed by the operator and one by the examining team are recommended to be deferred until the above stage III holes have been drilled and the results of drilling evaluated. The four holes to be deferred for the present are shown on figure 1 and listed below as follows:

E-11 (too deep, off the ore trend, and too near semifavorable hole M-10)

E-23 (off ore trend, many holes to west will test this area adequately)

E-24 (5 offset to ore hole M-13)

E-15* (off trend; too near semifavorable hole M-11)

---

* Omitted on map submitted by operator, but listed in his request. Verification of locations checked with operator's engineer.

One or more ore-bearing stage III holes adjacent to the above proposed deferred holes should be sufficient justification to permit the operator to drill them under DMEA, provided that stage III footage is available.

In regard to the extension of the contract for six months instead of the 90 days originally requested by the operator, the Executive Officer has already answered this in a letter to the operator dated November 5, 1956. The 90-day extension is of course necessary because the expiration date of the contract as written is December 1, 1956. It is apparently the operator's intention not to start any stage III drilling until after January 1, 1957.

We believe that the operator's requested amendment 3; namely, to offset non-DMEA company holes with stage III holes, is justified. In fact, this proposal was recommended by the examining team in the original report of examination (pp 21-22) but was never made a part of the DMEA contract. Therefore, an amendment to the contract is recommended to allow the following offsets of company holes (see fig. 1):

Company hole	Stage III offset
G-16	E-1 and E-2
G-34	E-29*

The company hole G-16 contained an average of 1.10 percent U_3O_8 through a 2.4-foot thickness (see table 1). G-34 is only mineralized but the presence of three strong ore holes 50 to 100 feet southerly enhances the possibility of penetrating a northeasterly extension of the ore already discovered in D-19; G-35 and G-33.

The stage III program of 29 holes recommended herein is predicated on a known northeasterly (N. 30-50° E) elongation of ore bodies parallel to the trend of the favorable ground. Because of this elongation, gained from study of the ore deposits in the district, one hole has been added and four holes deferred, possibly eliminated, by the examining team. The program proposed herein including the deferred holes will probably use up all the core footage (1200 feet) allotted for stage III.

It is contemplated that this stage III program, including the amendment proposed herein, should sufficiently explore the property and that no further work will be needed nor requested by the operator. Mr. Hugh W. Evans, engineer for Pacific Uranium, verbally agreed to the above modifications of his proposal in a telephone conversation November 1.

---

* Added by examining team

F. M. Byers, Jr.
F. M. Byers, Jr.,
Geological Survey

M. E. Salsbury
M. E. Salsbury,
Bureau of Mines

FMB/mlr
Enclosures (Fig. 1)

Table 1.-- Data on mineralized DMSA stage II holes and pertinent company holes (Data on stage I holes in our memorandum to Executive Officer dated June 21)

Drill hole	Footage interval	Feet	%U_3O_8	%V_2O_5	Footage interval	Feet	U_3O_8
G-16	441.5-442.0	0.5	0.06	tr.			
	442.0-442.5	0.5	1.07	2.0			
	442.5-443.0	0.5	2.39	4.1			
	443.0-443.5	0.5	1.75	5.0			
	443.5-443.9	0.4	0.05	tr.			
M3	223.8-224.8	1.0	0.09	0.38	226.3-227.3	1.0	0.11
	224.8-225.8	1.0	0.04	0.18			
M9	320.0-321.1	1.1	0.07	0.02	320.3-321.0	0.7	0.42
					323.3-324.1	0.8	0.04
M-13	215.0-216.0	1.0	1.48	3.6	218.5-219.3	0.8	1.1
	225.5-225.8	0.3	0.44	0.0			
M-14	248.8-249.3	0.5	0.03	0.06	249.2-250.2	1.0	0.38
	249.3-250.3	1.0	0.50	tr.			
M-15					242.9-243.7	0.8	0.02
G-33						1.6	0.64 1/
G-34					No data*	-	mineralized
G-35					112.1-116.6	4.5	0.40
					159.1-161.8	2.7	0.28
G-36					No data*	-	mineralized

* From either AEC or operator

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

224 New Customhouse
Denver 2, Colorado

January 7, 1957

Mr. Robert L. Redmond, Chief Geologist
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket No. DMEA 3928 (Uranium)
Contract No. I4m-E926
Pacific Uranium Mines Company
(Red, Ajax, and Wills claims)
Emery County, Utah

Dear Mr. Redmond:

In reference to a request by M . Hugh W. Evans, dated October 12, 1956, this constitutes confirmation of verbal approval by the Government on November 23, 1956 for you to drill the following offset holes under Stage III of the Contract:

Holes to be Offset	Approved Stage III Offset Holes
G-16	E-1 and E-2
G-34	E-29
D-6	E-3, E-4, E-5, and E-6
D-9	E-7, E-9, and E-12
D-11	E-8, E-10, and E-13
D-12	E-14 and E-16
M-13	E-17, E-20, E-21, and E-25
D-16	E-18, E-22, and E-26
M-14	E-19 and E-27
D-19	E-28.

The locations of the above listed offset holes are indicated by the symbol (+) on the map entitled, "Figure 1.-Northeast Part of Pacific Uranium Lease Showing Existing Drill Holes and Proposed Stage III Drill Holes, Red Hoe. 1-5, Ajax No. 21, and Ajax Fraction No. 21 Claims, Green River District, Emery County, Utah," which is attached hereto and made a part of this confirmation of work approval.

Nothing in this confirmation of work approval shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Very truly yours,

ISWEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosure

JWT:prl

cc: Chairman, Op. Comm. (4)
Finance Office, Reg. III
Amendment file, Reg. III
Harshman
Shaw (2)
Hasler
Townsend
Corres. file
Chron.

PACIFIC URANIUM MINES
1924 White Avenue
GRAND JUNCTION, COLORADO
Phone
CHapel 2-7261—CHapel 2-7262

DMEA
DEPARTMENT OF THE INTERIOR
NOV 9 1956
REGION III
DENVER, COLORADO

November 8, 1956

Official file copy

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

Re: Docket DMEA - 3928 (Uranium)
Contract Ldm-3926
Pacific Uranium Mines Co.
(Red, Ajax & Willis Claims)
Emery County, Utah

Dear Mr. Traver:

It was on the basis of a discussion which I had with your Grand Junction Office that I wrote my letter of November 1, 1956, requesting a six month, instead of a ninety day extension to our contract. Your letter of November 5, 1956 makes it clear that my second request for an extension was not practical at this time. Please disregard this second request.

I do hope, however, that the initial ninety day extension requested will be granted, for without this extension it will be impossible to complete Stage III.

Yours truly,

Hugh W. Evans

HWE:MOH

November 1, 1956

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

Re: Docket DMEA 3928 (Uranium)
Contract IDM-E926
Pacific Uranium Mines Co.
Red, Ajax and Wills claims
Emery County, Utah

Dear Mr. Traver:

Reference is made to our letter concerning Stage III dated October 12, 1956. The word "not" in the second sentence of the first paragraph should be deleted. This was a secretarial error. The operator does not plan on starting Stage III drilling until after government approval has been received.

Also, since the original Stage III proposal was presented, it has become apparent that a six month extension of the contract, rather than the ninety day extension requested in the letter referred to above, will be necessary to properly complete this exploration program. The company at present is very short of field personnel due to extensive drilling commitments in the Grants, New Mexico, area. These commitments will be fulfilled by January 1, 1957, thus freeing company personnel to oversee the DMEA drilling in Green River, Utah. Then, too, with winter upon us, Stage III drilling may be hampered by poor weather conditions. It might be necessary to take a brief winter recess. A six month extension would allow the operator to complete Stage III despite these problems.

Yours truly,

Hugh M. Evans

1924 White Avenue
Grand Junction, Colorado
October 12, 1956

Mr. W. M. Traver
Executive Officer, DMEA
Field Team, Region III
234 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-8926
Pacific Uranium Mines Company
Red, Ajax and Willa claims
Emery County, Utah

Dear Mr. Traver:

Reference is made to your letter dated October 4, 1956 concerning further Stage II drilling.

The fifteen holes drilled under Stage II were all that could be warranted under the terms of the contract. Insufficient mineralization was encountered south of Stage I drill hole D-20 to justify any Stage II drilling in this area.

Very truly yours,

Hugh N. Evans, Vice President
Pacific Uranium Mines Company

HNE:NOH

1924 White Avenue
Grand Junction, Colorado
October 12, 1956

DMEA
DEPARTMENT OF THE INTERIOR
OCT 17 1956
REGION III
DENVER, COLORADO

DMEA
DEPARTMENT OF THE INTERIOR
NOV 16 1956
REGION III
DENVER, COLORADO

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

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co.
Red, Ajax and Wills claims
Emery County, Utah

Dear Mr. Traver:

Stage II was completed August 29, 1956, and herewith is the operator's request for Stage III drilling. Provided government approval is not received at an earlier date, the operator contemplates commencing Stage III on November 1, 1956.

The estimated time needed for the Stage III drilling program outlined below is at least two months. Because the present contract terminates December 1, 1956, an extension to the contract will be necessary to complete the program. The operator herewith requests a ninety-day extension of the contract.

All Stage III offset holes are 100-foot or more from Stage I and II ore holes with the exception of E-16 and 18. These two holes are 100-foot offsets N 30 E and S 30 W respectively from D-16 which was classified as a mineralized hole only because of insufficient mineral thickness--0.8' at 0.96% U_3O_8, Ve.

Only DMEA drill holes showing a mineral thickness of one foot or more and a foot-assay product of 0.30 or better have been classified as ore holes. The lowest foot-assay of any DMEA drill hole classified as being mineralized is 0.08. The enclosed drill hole map and cross-sections show the location, depth, mineralization, and OBSS thickness of all DMEA holes in the proposed Stage III drilling area.

Twenty-six proposed Stage III drill holes are shown on the attached Drill Holes Progress Map II. The estimated collar elevations and non-core and core drill footages for these holes are listed below. For Stage III a slight variation has been incorporated into the drill hole grid pattern followed in Stages I and II. That is, the north-south offset direction has been changed from N 18 E, in line with the west property line, to N 30 E, the accepted orebody elongation trend in this area. No Stage III holes, however, are located closer than 100 feet from the property line.

Although only 26 holes and 7350 feet of drilling are accounted for in the above proposed Stage III program, the operator requests that full forty holes, 12,000 feet and/or $22,766.00 authorized by the contract be allowed by the government. It may be necessary to use some additional footage to complete the initial 26 holes and should amendments to the Contract Nos. 3 and 4, which accompany this request, be approved, then these will take care of the remaining footage.

Very truly yours,

H. W. Evans MOH

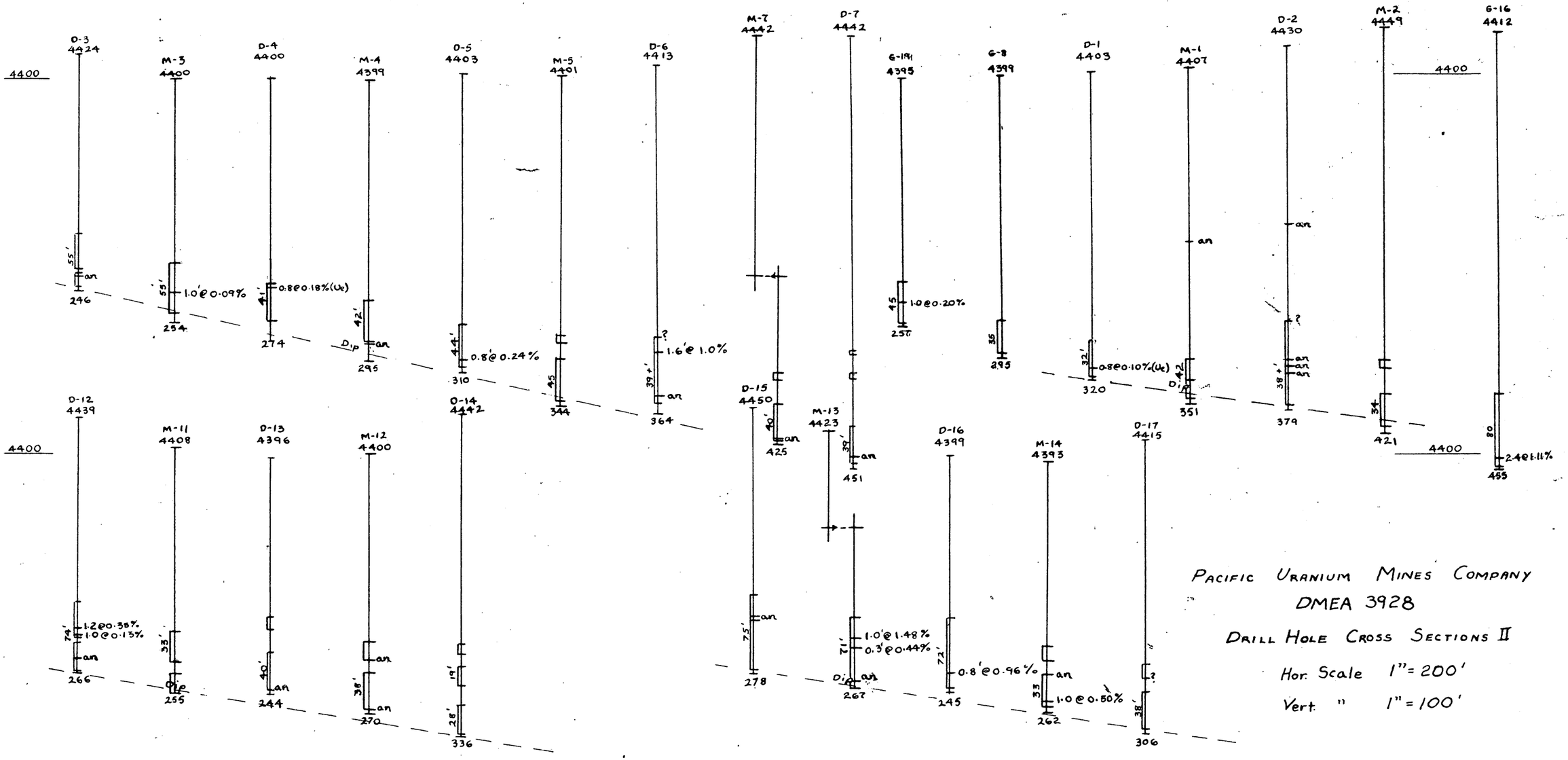
H. W. EVANS, Vice-President
Pacific Uranium Mines Company

Encls: Map
2 Cross Sections

HWE:MOH

STAGE III
ESTIMATED DRILL FOOTAGE

HOLE	COLLAR EL.	NON-CORE	CORE	TOTAL
E-3	4410	285	30	315
E-4	4408	270	30	300
E-5	4450	335	30	365
E-6	4410	280	30	310
E-7	4397	220	30	250
E-8	4425	345	30	375
E-9	4397	230	30	260
E-10	4410	325	30	355
E-11	4430	365	30	395
E-12	4395	220	30	250
E-13	4450	375	30	405
E-14	4430	205	40	245
E-15	4425	200	40	240
E-16	4440	210	40	250
E-17	4425	210	50	260
E-18	4400	210	40	250
E-19	4395	230	30	260
E-20	4440	215	50	265
E-21	4415	200	50	250
E-22	4390	220	30	250
E-23	4405	255	30	285
E-24	4440	215	50	265
E-25	4425	210	50	260
E-26	4410	215	40	255
E-27	4395	230	30	260
E-28	4380	135	40	175
		6410	940	7350



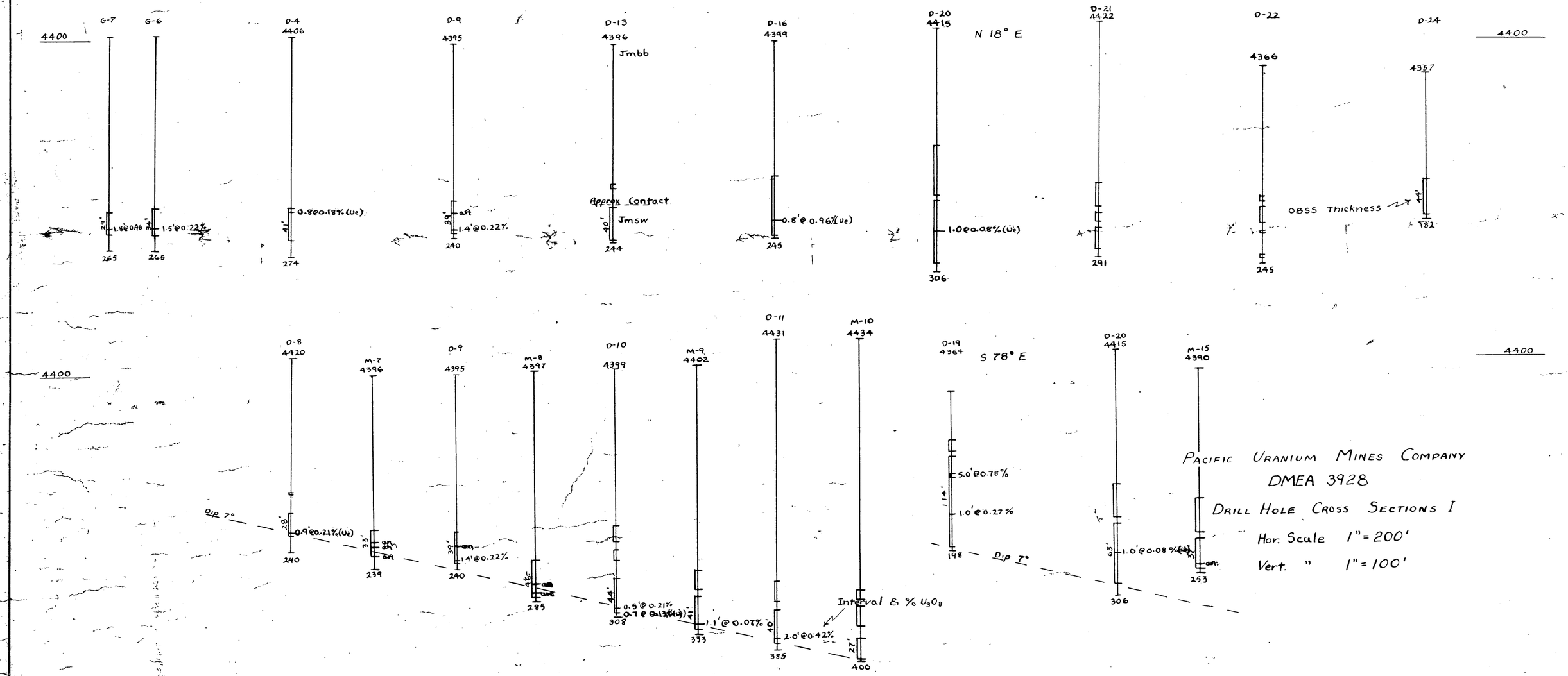
PACIFIC URANIUM MINES COMPANY

DMEA 3928

DRILL HOLE CROSS SECTIONS II

Hor. Scale 1" = 200'

Vert. " 1" = 100'



PACIFIC URANIUM MINES COMPANY

DMEA 3928

DRILL HOLE CROSS SECTIONS I

Hor. Scale 1" = 200'

Vert. " 1" = 100'

1924 White Avenue
Grand Junction, Colorado
October 12, 1956

Mr. W. H. Traver
Executive Officer, DMEA
Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-2926
Pacific Uranium Mines Co.
Red, Ajax and Wills claims
Emery County, Utah

Dear Mr. Traver:

A third Amendment to the contract is requested, in which the operator is authorized to drill two Stage III holes as offsets to company hole G-16.

G-16 is an ore hole which fits well into the Stage I and II DMEA drill hole grid pattern, and therefore in the operator's opinion justifies offsetting. G-16 was drilled by the Haile Mines, Inc. in the fall of 1954 and proved to have 1.11% U_3O_8 from 441.5-3.9 feet.

The proposed offsets of G-16 are listed below and shown on the accompanying Drill Hole Progress Map II:

Drill Hole	Estimated Collar Elev.	FOOTAGE Non-core	Core	Total	Location from G-16
E-1	4445	420	30	450	100 ft. N 72-3/4 W
E-2	4442	425	30	455	100 ft. S 61-1/4 W

Very truly yours,

Hugh W. Evans Mgr

Hugh W. Evans, Vice President
Pacific Uranium Mines Company

HWE:MCM

1924 White Avenue
Grand Junction, Colorado

Mr. W. H. Traver
Executive Officer, DMEA
Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idu-2926
Pacific Uranium Mines Co.
Red, Ajax and Wills claims
Emery County, Utah

Dear Mr. Traver:

A fourth Amendment to the contract is requested in which any authorized funds remaining in Stage III after the completion of the initial proposed 26 holes and, if approved, holes E-1 and E-2 be allocated for additional offset holes.

These additional offset holes would be used to extend any Stage III discoveries along the ore trend. The operator feels these secondary offset holes will be necessary to fill the 400 foot gap between the N 75 E - S 75 W, Stage I and II drill hole fence lines; provided, of course, the initial Stage III offsets prove to be in either ore or highly mineralized ground. These offset holes would be a minimum distance of 100 feet from any previously drilled hole.

The location of these additional offset holes would have to be determined after the majority of the initial Stage III holes had been drilled. If and when it appears advisable to drill these offset holes, the operator would submit his recommendations and request a work approval for them.

The contract as worded does not specifically authorize or forbid the drilling of this type of secondary offset hole; that is, there is no stated restriction as to the number of offsets to be drilled around any hole, and the implication of the statement, "not less than 100 feet" is that these offsets may be drilled at a greater distance than 100 feet from Stage I and II holes. The operator therefore hopes that the government will see fit to make it possible to drill as many secondary offset holes as the funds in the contract will allow.

Very truly yours,

Hugh H. Evans Jr.

Hugh H. Evans, Vice President
Pacific Uranium Mines Company

HHE:MOM

1924 White Avenue
Grand Junction, Colorado
October 12, 1956

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

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co.
Red, Ajax and Wills claims
Emery County, Utah

Dear Mr. Traver:

A fifth Amendment to the contract is requested in which the 863 feet of the remaining core footage in Stage II be allocated to Stage III core footage.

In Stage III only 30 feet of core footage per hole for the 40 holes authorized has been allowed. However, Stage I and II drilling has proved that there are at least two mineralized zones in the ore bearing sandstone, and that in many cases there is a split of more than 30 feet between these zones. It is therefore impossible to core both these horizons with 30 feet of continuous core. An attempt to core-plug-and-core is possible, but not too practical because in a short distance the position of the ore within an horizon can vary considerably. The wisest solution to this problem seems to be to core a longer interval where these split ore horizons are known to exist.

The contract does allow the transfer of funds from Stage I to Stage II, but for some reason it does not allow this between Stage II and III. The operator feels that allowing the transfer of excess core footage in Stage II to Stage III would be in the best interests of both the operator and the government.

Very truly yours,

Hugh W. Evans MOH

HUGH W. EVANS, Vice-President
Pacific Uranium Mines Company

HWE:MOH

224 New Customhouse
Denver 2, Colorado

December 18, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations

Enclosed are four copies each of gamma-ray log interpretations for the following DMEA contracts.

Mr. Murphy

Docket DMEA 3854, Contract Idm-E967, Four Corners Exploration Co., McKinley County, New Mexico
Docket DMEA 3928, Contract Idm-E926, Pacific Uranium, Green River, Utah, (Private holes - Pacific Uranium)
Docket DMEA 3939, Contract Idm-E934, Westvaco Mineral Products, McKinley County, New Mexico
Docket DMEA 3943, Contract Idm-E932, Westvaco Mineral Products, McKinley County, New Mexico
Docket DMEA 3989, Contract Idm-E933, Westvaco Mineral Products, McKinley County, New Mexico
Docket DMEA 4041, Contract Idm-E969, America Leduc Uranium, Outlaw Mesa, Colorado
Docket DMEA 4071, Contract Idm-E940, Colamer Corporation, McKinley County, New Mexico
Docket DMEA 4073, Contract Idm-E987, Simpson Mining Co., Beaver Mesa, Colorado - Utah
Docket DMEA 4222, Contract Idm-E1003, Radium King, La Sal Creek, Utah
Private holes, Barker Graham, Beaver Mesa, Utah

/s/ W. M. Traver

W. M. Traver

c
o
p
y

Pacific Uranium
Green River, Utah
DMEA DOCKET NO. 3928

8926

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
M-1	351.0	281.0 BX	5.1-350.5	387.6 - 388.7	1.1	640			0.018	
				304.1 - 306.6	2.5	200			<0.005	
				325.5 - 326.5	1.0	420			0.010	
				326.5 - 327.8	1.3	320			<0.010	
				332.2 - 333.7	1.5	320			<0.010	
				341.8 - 344.2	2.4	300			<0.005	
M-2	421.0	None	2.6-421.0	293.5 - 294.5	1.0	460			0.014	
				294.5 - 296.9	2.4	300			<0.005	
				296.9 - 298.9	2.0	640			0.014	
				298.9 - 300.0	1.1	570			0.015	
				403.4 - 404.5	1.1	320			<0.010	
				419.1 - 419.9	0.8	470			0.013	
M-3	254.0	None	3.7-252.0	224.9 - 226.3	1.4	900			0.024	
				226.3 - 227.3	1.0	3,300			0.11	
				227.3 - 228.0	0.7	1,000			0.043	
M-4	295.0	225.0 BX	3.8-276.0	273.7 - 274.7	1.0	380				
M-5	344.0	270.0 BX	3.8-344.0	Barren						
M-6	425.0	None	209.0-425.0	411.6 - 413.6	2.0	280			<0.005	
				415.1 - 416.3	1.2	400			<0.010	
				421.7 - 422.5	0.8	230			<0.005	
M-7	225.0	146.0 BX	4.4-224.5	196.7 - 197.7	1.0	260			<0.005	
				199.3 - 200.1	0.8	220			<0.005	
				206.7 - 207.7	1.0	440			0.011	
				211.6 - 213.0	1.4	660			0.016	
				220.0 - 221.1	1.1	620			0.017	
				221.1 - 222.1	1.0	300			<0.010	

* From top to bottom depths

Pacific Uranium
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_eU_3O_8$	Remarks
M-8	285.0	207.0	3.8-280.0	264.8 - 266.0	1.2	290			<0.010	
		BX		275.5 - 277.0	1.5	340			<0.010	
M-9	333.0	255.0	3.8-332.7	44.6 - 46.2	1.6	950			0.024	
		BX		320.3 - 321.0	0.7	7,000			0.42	
				323.3 - 324.1	0.8	1,000			0.040	
M-10	392.0	20.0	247.9-392.0	355.9 - 357.0	1.1	380			<0.010	
		BX		357.0 - 357.7	0.7	200			<0.005	
M-11	255.0	None	3.2-227.6	196.2 - 197.3	1.1	290			<0.010	
				197.3 - 198.2	0.9	260			<0.010	
				201.0 - 201.8	0.8	200			<0.005	
				211.9 - 212.6	0.7	240			<0.010	
				214.5 - 215.6	1.1	250			<0.010	
				215.6 - 216.5	0.9	280			<0.010	
				221.3 - 221.9	0.6	270			<0.010	
M-12	270.0	190.0	4.8-269.2	219.5 - 220.8	1.3	570			0.013	
		BX		263.6 - 264.6	1.0	500			0.014	
M-13	267.0	None	2.7-267.0	184.9 - 186.4	1.5	250			<0.005	
				218.5 - 219.3	0.8	30,000			1.1	
				224.5 - 225.9	1.4	320			<0.010	
				227.8 - 228.6	0.8	1,800			0.053	
				259.0 - 260.4	1.4	600			0.014	
				261.0 - 262.1	1.0	350			<0.010	
M-14	262.0	199.0	4.3-260.5	208.6 - 210.9	2.3	250			<0.005	
		BX		222.9 - 223.8	0.9	240			<0.005	
				249.2 - 250.2	1.0	11,000			0.38	
M-15	257.9	None	3.7-257.9	199.6 - 200.6	1.0	200			<0.005	
				242.9 - 243.7	0.8	640			0.021	
				246.0 - 247.1	1.1	220			<0.005	
				251.3 - 253.7	2.4	220			<0.005	

* From top to bottom depths

Pacific Uranium
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-14	336.0	None	2.6-327.0	287.7 - 289.0	1.3	240			<0.005	
D-15	278.0	270.0BX 270.0NX	6.7-278.0	200.4 - 203.7 205.7 - 206.6 208.4 - 211.0 213.8 - 215.3	3.3 0.9 2.6 1.5	260 270 320 320	460 480 570 570		<0.010 0.013 0.011 0.012	
D-17	305.0	235.0 BX	2.8-302.9	Barren						
D-28	393.0	None	5.3-385.0	364.5 - 366.0	1.5	520			0.010	
D-31	397.0	350.0 BX	4.7-397.0	Barren						
D-32	463.0	None	4.6-463.0	Barren						
D-33	380.0	None	5.4-357.6	Barren						
D-34	341.0	288.0 BX	4.2-340.3	Barren						

* From top to bottom depths

Private Holes (Pacific Uranium)
Off Set of D-19
Green River, Utah

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
G-32	166.0	None	79.4	151.6	108.5	109.3	0.8	980			0.039	
					117.5	119.3	1.8	860			0.018	
					147.0	148.7	1.7	920			0.022	
G-35	—	None	87.5	161.8	112.1	113.6	1.5	10000			0.38	
					113.6	115.7	2.1	3000			0.074	
					115.7	116.6	0.9	34000			1.2	
					159.1	160.5	1.4	5000			0.16	
					160.5	161.8	1.3	13000			0.41	

* From top to bottom depths

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

RECEIVED
DEC 21 1956
D.M.E.A.

224 New Customhouse
Denver 2, Colorado

December 18, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket No. 3928, (Uranium), Contract No. Idm-E926, Pacific Uranium Mines Company, (Red, Ajax and Wills Claims), Emery County, Utah - Change of Address

Enclosed are two copies of a letter dated December 9, 1956, from the subject Operator requesting that all future correspondence be directed to the attention of Mr. Robert L. Redmond, Chief Geologist, at the following address:

Pacific Uranium Mines
1924 White Avenue
Grand Junction, Colorado

W. M. Traver

Enclosures

John P. Kellogg, *Manager*
Robert L. Redmond, *Chief Geologist*
Main Office in Los Angeles

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

DMEA
DEPARTMENT OF THE INTERIOR
DEC 17 1956
REGION III
DENVER, COLORADO

December 9, 1956

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

RE: Docket DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co.
Red, Ajax & Wills Claims
Emery County, Utah

Dear Mr. Traver:

This is to notify you that all future correspondence concerning the DMEA contract referred to above should be addressed to this company at our Grand Junction address, attention : Mr. Robert L. Redmond, chief geologist. As of December 15, 1956, I will no longer be associated with Pacific Uranium Mines Company.

Yours truly,

Hugh W. Evans

Hugh W. Evans

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

RECEIVED NOV 26 1956 D.M.E.A.

224 New Customhouse
Denver 2, Colorado

November 20, 1956

Mr. Hugh W. Evans
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket No. DMEA 3986 (Uranium)
Contract No. Idm-2926
Pacific Uranium Mines Company
(Red, Ajax, and Willa claims)
Emery County, Utah

Dear Mr. Evans:

Enclosed are the original and five copies of proposed Amendment No. 3 to Contract No. Idm-2926, which we have prepared pursuant to your requests of October 12, 1956 to modify the description pertaining to Stage III drilling so that company drilled holes showing significant mineralization can be offset as well as holes drilled under Stages I and II of the contract. The Amendment also extends the date fixed on or before which work is to be completed an additional ninety days, as requested, or from December 1, 1956 to March 1, 1957.

Your request for approval for drilling under Stage III is being handled as a separate matter, on which you should have advice from our Grand Junction Office by this date.

Your request for approval for the transfer of unused Stage II footage and funds to Stage III is not being considered at this time, as the contract expressly prohibits such transfer. After completion of all authorized drilling under Stage III, if you are of the opinion that additional drilling is desirable, then please revive your request for transfer of footage and funds from Stage II to Stage III and we will forward it to the Washington Office, DMEA, for their consideration and appropriate action, as approval for such a transfer of footage and funds is deemed not to be within the authority delegated to this office.

If the Amendment is satisfactory, all copies are to be signed by an official of Pacific Uranium Mines Company authorized to sign such instruments, the signer's title inserted, the corporate seal affixed, and all copies promptly returned to this office. Upon return of the properly signed copies of the Amendment, and after signature by the Executive Officer, DMEA, Field Team, Region III, for the Government, an executed copy of the Amendment will be returned to you.

Very truly yours,

Original signed by
W. M. TRAVER
W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosures

JWT:prl

cc: Chairman, Op. Comm. (2)
Marshman
Shaw (2)
Hasler
Townsend
Corres. file
Chron.

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

RECEIVED
OCT - 8 1956

224 New Customhouse
Denver 2, Colorado

October 4, 1956

Mr. Hugh W. Evans, Vice President
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Co.
Red, Ajax and Wills claims
Emery County, Utah

Dear Mr. Evans:

Form MF-104, Operator's Monthly Report and Voucher, for August, 1956 has been received in this office and is being processed for payment.

The cost of three feet of core drilling in Hole M-4 has been disallowed because the lithologic log for this hole shows a total logged depth of only 292 feet, whereas the cost of 295 feet of drilling in Hole M-4 was reported on Forms MF-104 and MF-104A. If the lithologic log is in error, the amount will be reinstated on receipt of a corrected lithologic log and an explanatory statement, which may be submitted in conjunction with any subsequent monthly report and voucher.

Very truly yours,

W. M. TRAVER

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

Copy to:
Irving Klubok, Sec.
122 S. Vermont Avenue
Los Angeles 4, Calif.
JDC:jy
cc: Corresp. E926
Sec. Op. Comm. (2)
Shaw (2)
Townsend Chron.

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

RECEIVED
OCT - 8 1956

224 New Customhouse
Denver 2, Colorado

October 4, 1956

Mr. Hugh W. Evans, Vice President
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
Red, Ajax and Wills claims
Emery County, Utah

Dear Mr. Evans:

In your Narrative Report for August, 1956 you stated that Stage II drilling under Contract Idm-E926 has been completed, and you further stated that you would submit your plans for Stage III during the latter half of September.

Records in this office indicate that only 15 Stage II holes have been approved and drilled to date. The contract allows a maximum of 50 holes under Stage II, if warranted.

We request that you submit to this office your plans regarding any additional work that you may wish to perform under Stage II of the contract. Your request for possible additional Stage II drilling should take precedence over any proposed work under Stage III inasmuch as Stage III drilling is dependent on the results of drilling under Stages I and II.

Very truly yours,

W. M. TRAVER

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

Copy to:
Irving Klubok, Sec.
122 S. Vermont Ave.
Los Angeles 4, Calif.

JDC:jy
cc: Corresp. E926
Sec. Op. Comm. (2)

Harshman
Shaw (2)
Townsend
Chron.

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

Murphy
Docket

224 New Customhouse
Denver 2, Colorado

August 22, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations

Enclosed are four copies each of gamma-ray log interpretations for the following DMEA contracts.

Docket DMEA 3514, Contract Idm-E823, Climax Uranium Company, Mesa County, Colorado and Grand County, Utah
Docket DMEA 3632, Contract Idm-E797, Colamer Corp., McKinely County, New Mexico
Docket DMEA 3660, Contract Idm-E850, Mid-Continent Uranium Corp., Grand County, Utah
Docket DMEA 3896, Contract Idm-E910, Hecla Mining Co., San Juan County, Utah (Private holes - Apex Uranium Mines, Inc.)
Murphy Docket DMEA 3928, Contract Idm-E926, Pacific Uranium Mines Co., Emery County, Utah
Docket DMEA 3966, Contract Idm-E927, Parador Mining Co., Inc., McKinley County, New Mexico
Docket DMEA 3989, Contract Idm-E933, Food Machinery and Chemical Corp., McKinley County, New Mexico
Docket DMEA 4017, Contract Idm-E940, Colamer Corp., McKinley County, New Mexico
Docket DMEA 4070, Contract Idm-E939, San Jacinto Petroleum Corp., McKinley County, New Mexico
Private holes, Barkley Mining Co. (Troy Wade Lease) Club Mesa, Colorado

/s/ W. M. Traver

Enclosures

Pacific Uranium
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-15			Caved at 64.0'							
D-16		None	65.4-233.6	226.6 - 227.3	0.7	32,000			1.5	
				228.7 - 230.1	1.4	410			<0.010	
D-18B	335.0	None	4.3-334.6	279.8 - 280.9	1.1	340			<0.010	
				284.7 - 285.5	0.8	240			<0.010	
D-20	305.8	305 -NX -BX -RX	3.5-305.0	252.7 - 253.5	0.8	2,700	4,800		0.22	
				255.0 - 256.4	1.4	660	1,175		0.025	
D-21	291.0	146.0 -BX	11.4-289.6	220.1 - 221.1	1.0	300			<0.010	
				225.4 - 226.2	0.8	310			<0.010	
				229.5 - 231.3	1.8	360			<0.010	
				256.2 - 257.4	1.2	300			<0.010	
				257.8 - 259.1	1.3	240			<0.005	
				263.4 - 265.1	1.7	680			0.015	
				265.1 - 266.0	0.9	400			0.010	
				266.0 - 267.3	1.3	480			0.010	
				267.8 - 268.9	1.1	740			0.021	
D-22	241.0	134.0 -BX	60.9-241.0	Barren						
D-30	333.4	None	3.2-313.6	255.1 - 256.9	1.8	380			<0.010	

*From top to bottom depths

Pacific Uranium
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-15			Caved at 64.0'									
D-16		None	65.4	233.6	226.6	227.3	0.7	32,000			1.5	
					228.7	230.1	1.4	410			<0.010	
D-18B	335.0	None	4.3	334.6	279.8	280.9	1.1	340			<0.010	
					284.7	285.5	0.8	240			<0.010	
D-20	305.8	305 -NX -BX -RX	3.5	305.0	252.7	253.5	0.8	2,700	4,800		0.22	
					255.0	256.4	1.4	660	1,175		0.025	
D-21	291.0	146.0 -BX	11.4	289.6	220.1	221.1	1.0	300			<0.010	
					225.4	226.2	0.8	310			<0.010	
					229.5	231.3	1.8	360			<0.010	
					256.2	257.4	1.2	300			<0.010	
					257.8	259.1	1.3	240			<0.005	
					263.4	265.1	1.7	680			0.015	
					265.1	266.0	0.9	400			0.010	
					266.0	267.3	1.3	480			0.010	
					267.8	268.9	1.1	740			0.021	
D-22	241.0	134.0 -BX	60.9	241.0	Barren							
D-30	333.4	None	3.2	313.6	255.1	256.9	1.8	380			<0.010	

*From top to bottom depths

E 926

Pacific Uranium
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-15			Caved at 64.0'							
D-16		None	65.4-233.6	226.6 - 227.3	0.7	32,000			1.5	
				228.7 - 230.1	1.4	410			<0.010	
D-18B	335.0	None	4.3-334.6	279.8 - 280.9	1.1	340			<0.010	
				284.7 - 285.5	0.8	240			<0.010	
D-20	305.8	305 -NX -BX -RX	3.5-305.0	252.7 - 253.5	0.8	2,700	4,800		0.22	
				255.0 - 256.4	1.4	660	1,175		0.025	
D-21	291.0	146.0 -BX	11.4-289.6	220.1 - 221.1	1.0	300			<0.010	
				225.4 - 226.2	0.8	310			<0.010	
				229.5 - 231.3	1.8	360			<0.010	
				256.2 - 257.4	1.2	300			<0.010	
				257.8 - 259.1	1.3	240			<0.005	
				263.4 - 265.1	1.7	680			0.015	
				265.1 - 266.0	0.9	400			0.010	
				266.0 - 267.3	1.3	480			0.010	
				267.8 - 268.9	1.1	740			0.021	
D-22	241.0	134.0 -BX	60.9-241.0	Barren						
D-30	333.4	None	3.2-313.6	255.1 - 256.9	1.8	380			<0.010	

*From top to bottom depths

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

224 New Customhouse
Denver 2, Colorado

September 21, 1956

Mr. Hugh W. Evans, Vice President
Pacific Uranium Mines Company
292 South La Cienega Boulevard
Beverly Hills, California

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
Red, Ajax and Wills claims
Emery County, Utah

Dear Mr. Evans:

We are returning all copies of your Narrative Report for the month of August, 1956 because they have not been signed.

Please sign and return all copies of the report to this office as soon as possible in order that we may process the August, 1956 voucher for payment.

Very truly yours,

W. M. TRAVER
W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosures
JDC:jy
cc: Corresp. E926
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Cooper
Chron.

RECEIVED
SEP 2 3 1956

This Amendt. was not cleared.

Date 8-8-56

Commodity Uranium

To: Mr. Murphy

Docket No. DMEA- 3928

Contract No. Idm-E 926

Attached is Amendment No. 1, dated June 1, 1956

TO BE REVIEWED.

Approved Murphy

Other action None

Please return this slip to me for my records.

Grace Ault

Date _____

Commodity _____

To: [illegible]

Docket No. [illegible]

Contract No. Idm-E [illegible]

Attached is Amendment No. _____, dated _____

TO BE REVIEWED.

Approved _____

Other action _____

Please return this slip to me for my records.

Grace Hult

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

RECEIVED
AUG 10 1956

224 New Customhouse
Denver 2, Colorado

VIA AIR MAIL

August 8, 1956

Mr. Hugh W. Evans
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
Emery County, Utah

Dear Mr. Evans:

Reference is made to your letter of August 3, 1956, wherein you advise of the plan to offset drill hole No. D-19 by drilling at Company expense on a 33-foot grid pattern.

You are at liberty to drill any holes you so desire at Company expense. However, offsetting DMEA drill hole D-19, as you outline, may prejudice the Government's approval of any additional drilling adjacent to hole D-19 under either Stage II or III of the DMEA Contract.

If the drilling is performed at Company expense as you outline, any subsequent request for the Government's approval of additional drilling in the immediate area must include the results of the drilling so performed at Company expense.

In the future, any communication with this office relative to operations under the Contract must be in sextuplicate, each copy complete with maps or other pertinent data.

Very truly yours,

W. M. TRAVER

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

JWT:prl

cc: Chairman, Op. Comm. (2)
Marshman
Shaw (2)
Hasler
Townsend
Corres. file
Chron.

w/copy of Operator's letter.

John P. Kelley, Manager
Robert L. Redmond, Chief Geologist
Main Office in Los Angeles

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

DMEA
Date Rec'd
AUG 6 1956
BUREAU OF MINES
Denver, Colorado

August 3, 1956

Mr. W. M. Traver
Executive Officer
224 New Customhouse
Denver 2, Colorado

RE: Docket DMEA 3928
(Uranium)
Contract Idm-E926

Dear Mr. Traver:

While Stage II is in progress, we would like to start offsetting around drill hole D-19 on our own account. This drilling program would in no way interfere with either Stage II or III DMEA drilling.

The plan is to offset on a 33-foot grid pattern with lines running N78W-S78E and N18E-S18W. Only non-core drilling is contemplated. The enclosed map shows the position of the first twelve proposed offsets.

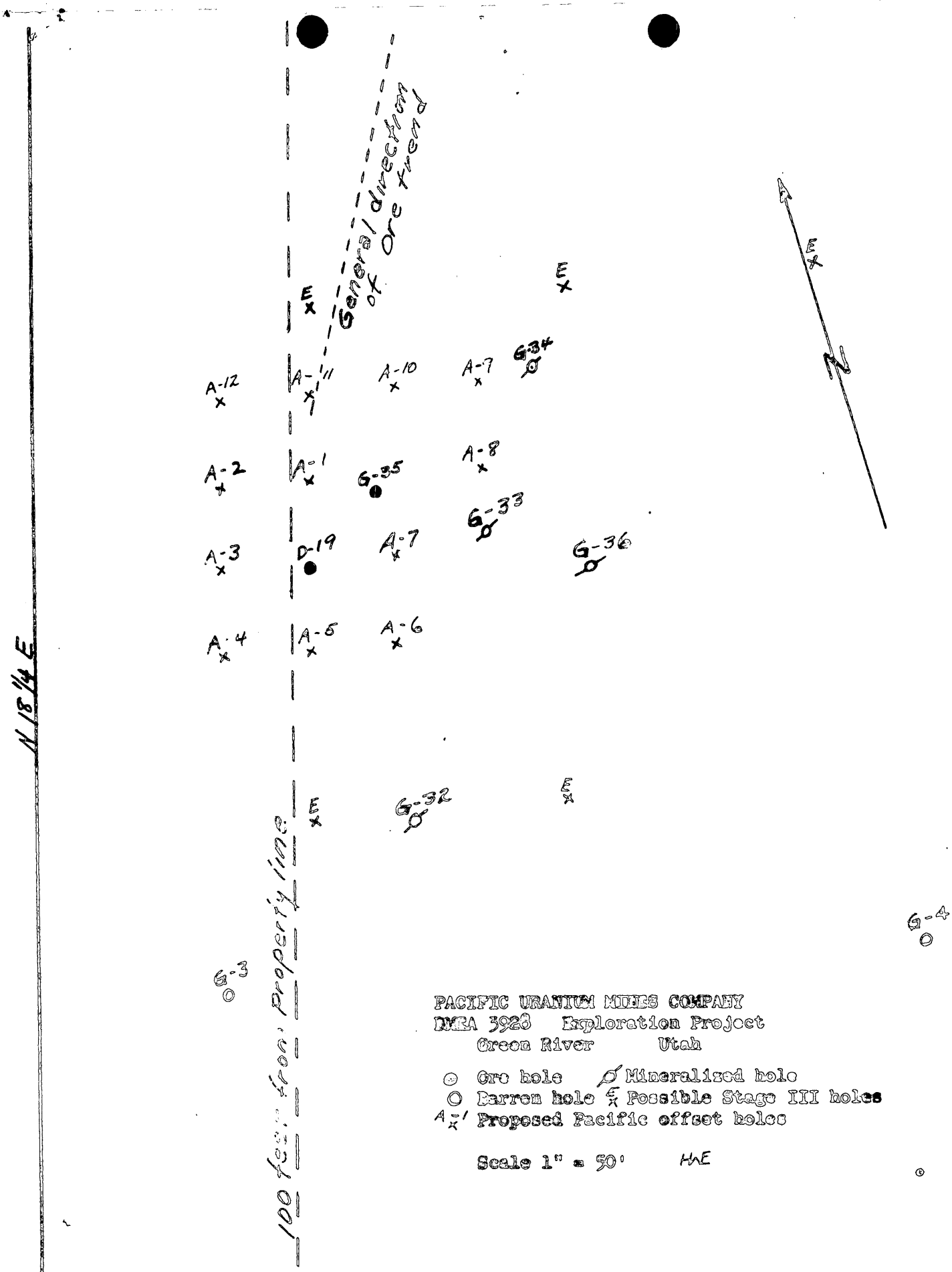
A 33-foot interval was chosen because it fits into the Stage III drilling pattern. These offset holes would serve only as fill-in holes between the Stage I and II, and III core holes. If this special drilling program forces us to move or eliminate some of our Stage III holes, we would then wish to alter our plans.

An early answer from you on this subject would be appreciated, for we would like to begin offsetting immediately. Thank you.

Yours truly,

Hugh W. Evans

Hugh W. Evans


General direction of Ore trend
N
E
E
E
E
A-12
A-11
A-10
A-7
G-34
A-2
A-1
G-35
A-8
G-33
A-3
D-19
A-7
G-36
A-4
A-5
A-6
G-32
G-3
G-4
100 feet from property line
N 18 1/4 E
PACIFIC URANIUM MINES COMPANY
DMEA 3928 Exploration Project
Green River Utah
Ore hole
Mineralized hole
Barren hole
Possible Stage III holes
Proposed Pacific offset holes
Scale 1" = 50'
HWE

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

RECEIVED
JUL 25 1956

224 New Customhouse
Denver 2, Colorado

July 23, 1956

Mr. Hugh W. Evans, Chief Engineer
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
Green River claims
Emery County, Utah

Dear Mr. Evans:

Receipt is acknowledged of your letter dated July 14, 1956 relative to certain holes which you were unable to probe to the entire depths drilled.

It is noted that the core recovery was satisfactory in the holes which you were unable to probe completely. Therefore, if the core was checked for radioactivity and chemical analyses run on those sections of core where significant radioactivity was encountered, you will not be required to re-probe the listed holes; D-14, D-17, D-19, D-22, D-25 and D-26.

Very truly yours,

W. M. TRAVER

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

JDC:jy
cc: Corresp. E926)
MF-104 File E926) w/copy of Oper. let. of 7-14-56
Sec. Op. Comm. (2))
Shaw (2))
Townsend)
Chron.

Kellogg, Manager
J. Redmond, Chief Geologist
Office in Los Angeles

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

July 14, 1956

RECEIVED
JUL 18 1956
Div. of Mineral Technology
BUREAU OF MINES
Denver Experiment Station
Denver, Colorado

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JUL 25 1956

DMEA
Date Rec'd.
JUL 20 1956
BUREAU OF MINES
Denver, Colorado

Mr. Carl Belser
U. S. B. M.
Denver Federal Center Bldg. 20
Denver, Colorado

Re: Docket DMEA 3928
(Uranium)
Contract Idn E-926

Dear Mr. Belser:

Mr. Kellogg informed me by phone yesterday that there is some question about our radiometric probing. The only mention of this subject that I have found in our contract is on page 3 of exibit "A". Here the contract reads "The Government shall not contribute to the cost of any hole that...(3) cannot be probed with radiometric logging equipment;..." The contract does not specifically say that the holes must be probed by the operator, nor does it specify to what depth these holes must be probed.

For all practical purposes, I tried to see that the Stage I holes were probed to within five feet of their bottoming depth. Below are listed six holes in which this was not done because of caving. However, in these holes the core through the zone not probed was checked for radioactivity.

Hole	Total Depth Drilled	Total Depth Probed	Footage Not Probed	% Core recovery in zone not probed	Footage of OBSS in zone not probed	Classification of hole
D-14	336'	310'	26'	97 %	22'	Fav
D-17	306'	289'	17"	82 %	11'	Unf
D-19	198'	180'	18'	78 %	14'	Ore
D-22	295'	239'	6'	97 %	none	Unf
D-25	265'	255'	10'	98 %	none	Unf
D-26	215'	183'	32'	98 %	25'	Fav

OK

Note: D15 and D-20 were washed out and reprobed in June. See June Report Radioactivity Log.

Because the information allready recorded seem adequate, it was my decision not to bring back a rig to washout and case any of the above holes. If the Government cannot concear with my decision and feels that any of these holes should be washed out and reprobed, please notify me accordingly and this can be done while stage II is in progress.

Yours truly

Hugh W. Evans

Hugh W. Evans
Chief Engineer

HWE/vp
cc. Mr. J. W. Mailer
cc. Mr John P. Kellogg

resp. E 926

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

224 New Customhouse
Denver 2, Colorado

July 19, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3928 (Uranium), Contract Idm-E926, Pacific Uranium Mines Company, Emery County, Utah

Enclosed herewith are the Government's, Division, and Docket copies of Amendment No. 2 to Contract Idm-E926, which were forwarded byyour letter of June 25, 1956 for signature by the Operator.

Copies of the Amendment have been distributed to the Operator, the Finance Office, Region III, and to other offices concerned.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
23 1956

224 New Customhouse
Denver 2, Colorado

~~July 16,~~ 1956

RECEIVED
JUL 23 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3928 (Uranium), Contract Idm-E926, Pacific Uranium Mines Company, Emery County, Utah

Enclosed are four copies of project work approval issued by the DMEA Field Team, Region III.

Also enclosed are four sets of data relative to the matter.

for W. M. Traver

Enclosures

MINERAL DEPOSITS
DMEA
REC IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

JUN 25 1956

GEOLOGICAL SURVEY
DENVER, COLORADO

P. O. Box 360
Grand Junction, Colorado

DMEA
Date Rec'd.

RECEIVED June 21, 1956

JUL 23 1956

JUL 3 1956

BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman
J. F. Shaw
J. William Hasler

From: F. M. Byers, Jr.,
M. H. Salsbury

Subject: Interim report recommending stage II drilling, DMEA docket 3928 (uranium), contract Idm-E 926, Pacific Uranium (Green River property), Emery County, Utah.

DMEA stage I drilling has been completed by Pacific Uranium Mines, Inc., on their leased claims in the Green River district. Thirty-one of the 34 proposed stage I holes have been drilled. Five holes penetrated mineralized sandstone of ore-grade (1 foot of 0.10 percent of U_3O_8 or better), and seven holes penetrated weakly mineralized rock of sub-ore grade. All the mineralized holes occur in the semi-favorable to favorable ore-bearing Salt Wash sandstone in the northwestern part of the property (fig. 1), where 15 stage II holes, designated M-1 to M-15, are proposed by Mr. Hugh W. Evans, engineer for Pacific Uranium. A request for stage II as outlined herein is being submitted by the operator.

The 15 proposed stage II holes are not to be regarded strictly as offsetting mineralized stage I holes; rather the stage II holes are recommended on the basis of the general association of the mineralized holes with the semi-favorable to favorable ground. The original intent of the combined stage I and stage II drill hole pattern was to explore favorable ground on a 200 by 400-foot grid, the long orientation of the grid being parallel to the northeasterly trend of known ore bodies in the favorable ground.

U. S. Geological Survey probe results of five DMEA ore-bearing holes and of one hole, G-35, drilled originally by Pacific Uranium, are shown in table I.

Table I

Drill hole	Depth (feet)	Thickness (feet)	Grade eU_3O_8
D-6	300.2 - 301.5	1.3	1.05
D-9	234.0 - 235.0	1.0	0.50
	235.0 - 235.9	0.9	0.36
D-11	363.6 - 364.9	1.3	0.50
	366.7 - 367.6	0.9	0.03
	369.3 - 371.2	1.9	0.03
D-12	219.4 - 220.6	1.2	0.40
	220.6 - 221.5	0.9	0.03
	221.5 - 222.6	1.1	0.18
D-19	104.0 - 104.8	0.8	0.29
	104.8 - 107.0	2.2	0.03
	107.0 - 108.0	1.0	5.0
	108.0 - 109.1	1.1	1.5
	152.0 - 152.9	0.9 (lower zone)	0.43
G-35	112.1 - 113.6	1.5	0.38
	113.6 - 115.7	2.1	0.07
	115.7 - 116.6	0.9	1.2
	159.1 - 160.5	1.4 (lower zone)	0.16
	160.5 - 161.8	1.3 (lower zone)	0.41

Core from hole D-19 assayed 0.78 U_3O_8 over a thickness of five feet in the upper ore zone.

Because of the association of the 12 mineralized stage I holes in the favorable ground in the northwestern part of the property, it is recommended that the 15 stage II holes be drilled in this area (fig. 1) in order to complete a 200 by 400-foot grid spacing. Inasmuch as 25 stage II holes will not be drilled, ample footage of both core and non-core drilling is available. Footage estimates of the 15 proposed stage II holes are given in table 2. Maximum allowable footages for stage II in the contract are 13,000 feet of non-core and 2,000 feet of core drilling.

Table 2.-- Estimated footages of proposed stage II holes

Drill hole	Non-core footage	Average core footage
M-1	320	80
M-2	380	80
M-3	210	80
M-4	250	80
M-5	300	80
M-6	360	80
M-7	200	80
M-8	240	80
M-9	300	80
M-10	350	80
M-11	200	80
M-12	240	80
M-13	210	80
M-14	240	80
M-15	220	80
Totals	4,020	1,200 feet

F. M. Byers, Jr.
F. M. Byers, Jr.,
U. S. Geological Survey

M. H. Salsbury
M. H. Salsbury
U. S. Bureau of Mines

FMB/mlr

Enclosure (fig. 1)

John P. Kellogg, Manager
Robert L. Redmond, Chief Geologist
Main Office in Los Angeles

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

June 22, 1956

Mr. W. M. Traver
Executive Officer
224 New Custom House Bldg.
Denver 2, Colorado

RECEIVED
JUL 23 1956

RE: DMEA Docket No. 3928 (Uranium)
Contract Ida-E-926

Dear Mr. Traver:

Stage I drilling was completed June 10, 1956, and now approval is requested to commence Stage II drilling. Only 15 of the proposed Stage II holes are shown as an "X" on the Drill Hole Progress Map included with the June Narrative Report which is enclosed with this letter. All 15 of the planned Stage II holes fall northwest of a line running approximately N 45° E from D-21. No holes of sufficient favorability were drilled south of this line which could warrant offsetting at this time.

The chart below gives the estimated noncore and core footage necessary to complete each of the planned Stage II holes. The total estimated cost for Stage II drilling amounts to: noncore 3520 feet @ $1.50 or $5280.00: core 1200 feet @ $3.50 or $4200.00: grand total of 4720 feet or $9480.00.

PROPOSED STAGE II HOLES

Drill Hole	Collar Elevation (Approx.)	Estimated Noncore (Top JMSW)	Depth Core	Total
M-1	4420	270	80	350
M-2	4440	320	80	400
M-3	4410	170	80	250
M-4	4405	220	80	300
M-5	4410	270	80	350
M-6	4440	340	80	420
M-7	4410	160	80	240
M-8	4400	200	80	280
M-9	4405	255	80	335
M-10	4450	340	80	420
M-11	4415	180	80	260
M-12	4400	200	80	280
M-13	4425	185	80	265
M-14	4395	190	80	270
M-15	4395	220	80	300
TOTALS		3520	1200	4720

If approval is received prior to July 3, 1956, the operator contemplates commencing Stage II drilling on that date.

Yours truly,

Hugh W. Evans

Hugh W. Evans
Chief Engineer

HWE:RCB

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

RECEIVED
JUL 23 1956

[illegible] New Customhouse
Denver 2, Colorado

July 13, 1956

Mr. High W. Evans, Chief Engineer
Pacific Uranium Mines Company
[illegible] White Avenue
Grand Junction, Colorado

RECEIVED
JUL 23 1956

Re: Contract [illegible] (Uranium)
Contract [illegible]
Pacific Uranium Mines Company
Emery County, Utah

Dear Mr. Evans:

Consistent with provisions in the contract relative to Stage II work, this constitutes confirmation of verbal approval by the Government on July 5, 1956 for you to drill the following listed holes under Stage II of the Contract:

APPROVED STAGE II HOLES

Drill Hole	Collar Elevation (Approx.)	Estimated Reserve (Tons ZRUV)	Estimated Depth Core	Estimated Total
H-1	4400	270	80	350
H-2	4440	320	80	400
H-3	4430	170	80	250
H-4	4405	220	80	300
H-5	4410	270	80	350
H-6	4440	340	80	420
H-7	4420	160	80	240
H-8	4400	200	80	280
H-9	4405	255	80	335
H-10	4490	340	80	420
H-11	4415	180	80	260
H-12	4400	200	80	280
H-13	4405	185	80	265
H-14	4395	190	80	270
H-15	4395	220	80	300
TOTALS		3540	1200	4740

The above listed holes are shown on the map entitled, "Figure 1. Map Showing Existing Drill Holes, Proposed Stage II DMA Drilling, Juanita No. 1, Red, Ajax and Willis Groups of Claims, Pacific Uranium Mine Company, Emery County, Utah," which is attached hereto and made a part of this work approval.

Nothing in this work approval shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, or any item of allowable cost which is expressly designated "maximum."

Very truly yours,

DMEA Field Team, Region III

W. M. Inskeep

W. M. Inskeep

E. M. Hawthorne

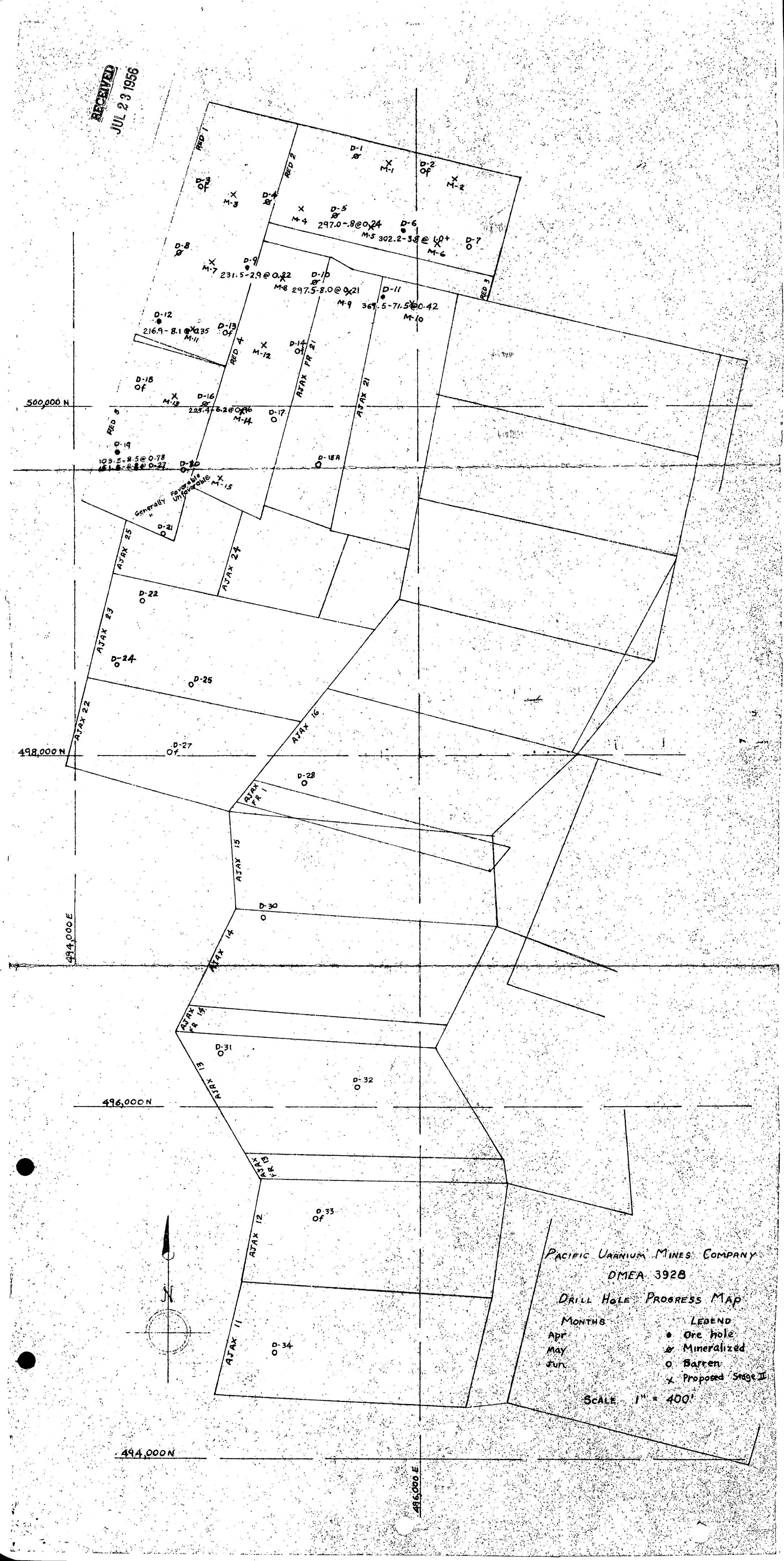
E. M. Hawthorne

Enclosure

JWI:prl

cc: Chairman, Oper. Comm. (4)
Finance Office, Region III
Amendment File
Hawthorne
Hunter
Shaw (2)
Townsend
Corres. file
Chron.

RECEIVED
JUL 23 1956



Selfridge

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

July 12, 1956

Memorandum

To: Administrator

From: George C. Selfridge, Special Assistant

Subject: Examination Trip
Docket No. DMEA-3928
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah
Contract No. Idm-E 926

The subject property and vicinity were visited with Messrs. Traver and Harshman late the afternoon of May 25 and the morning of the 26th. Two drills were working; however, previous to that day there had been three drills. One drill was a Mayhew which was cutting a 4-3/4" hole. The core was 2-3/8" in diameter. The drill averaged sixty feet a shift, but the contractor was going to reduce the core size because of the time needed to drill. The second drill was a regular diamond drill.

The locations of several of the drill holes were visited. Apparently depth and thickness of the Salt Wash sandstone had been underestimated in the field report. The contract did not provide specifically for any bulldozing of drill sites or access roads. This item should have been included, and it was contemplated to ask for such an amendment (this amendment has since been granted). Mining of some of the ore holes may be a problem as they are in or near the bed of a creek in a gulch.

The property as a whole lies in a topographic low with steep Brushy Basin cliffs to the east and relatively gently sloping cliffs to the west and south. Only a few of the holes had been drilled in the Burro Canyon formation. This is overlain by the Mancos shale to the east. This area was inadvertently visited because of poor roads, but was the site of a former DMEA project by the Uranium Prospectors Company, Ltd.

Just to the north of the subject property DMEA had also participated in a third project, Docket No. DMEA-3767 (Uranium), Uranium Prospectors Company, Ltd., Jack Rabbit claims group, Emery County, Utah, Contract No. Idm-E 877. A three hundred and five foot shaft had been sunk on this property and equipped reportedly

at a cost of $73,000.00. It had just be reopened by the Vitro Uranium Company which had acquired all of the Uranium Prospectors Company, Ltd. properties. Some ore had been previously mined by the Operator and stockpiled on a flat to the west. The underground workings were quite wet and the floors steeply inclined because of the type of equipment used. The showings that had been opened and mined were small. It is doubtful that such deposits can be mined economically, possibly even with the bonus. Better ore bodies are expected to the east-southeast of the shaft. The work is being done by a contractor.

One item of interest was noticed on this property. Two inch aluminum pipe, cut Victaulic style, was being used for air line underground. The pipe comes in bundles of ten 20' lengths. One end of a bundle can be lifted with one finger. The contractor explained that the [illegible] pipe was non-corrosive, bent[illegible] as easily as black pipe without collapsing and withstood [illegible] pressures exceeding 1,000 pounds per square inch. He had had experience with plastic pipe and found it wholly unsuitable either on the surface or underground.

George C. Selfridge

GCSelfridge:rem
cc to: Docket
Admr. R. File
Messrs. Johnson
~~Martin~~ Ellis
Selfridge

P.S. The second drill rig which was drilling in the Brushy Basin formation was using two sizes of finger bits. The larger cost $14 ~~apiece~~ and the smaller $9. The bits will drill from two to three hundred feet in shale and as little as two feet in hard sandstone.

Murphy

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

June 25, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations

Enclosed are four copies each of gamma-ray log interpretations for the following DMEA contracts.

Docket DMEA-3048, Contract Idm-E597, Camoose Mining Company, Montrose County, Colorado

Docket DMEA-3660, Contract Idm-E850, Mid-Continent Uranium Co., Beaver Mesa, Colorado

Docket DMEA-3809, Contract Idm-E890, Silver Pick Uranium, Inc., San Juan County, Utah

Docket DMEA-3896, Contract Idm-E910, Hecla Mining Company, Moab, Utah

Docket DMEA-3928, Contract Idm-E926, Pacific Uranium Co., Green River, Utah

W. M. Traver

Enclosures

Pacific Uranium Co.
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-1	319.8	None	8.6-319.0	283.0 - 284.4	1.4	280			<0.010	
				307.8 - 308.5	0.8	1,600			0.046	
				311.5 - 312.3	0.8	240			0.005	
				314.5 - 315.8	1.3	260			<0.005	
				316.4 - 317.3	0.9	400			0.011	
				317.3 - 317.9	0.6	320			0.010	
D-2	379.0	None	243.3-363.7	324.4 - 325.3	0.9	260			<0.010	
				325.3 - 326.8	1.5	260			<0.005	
D-3	246.0	None	7.6-244.0	220.6 - 221.5	0.9	200			<0.005	
				225.1 - 226.7	1.6	200			<0.005	
				226.7 - 227.6	0.9	500			0.014	
D-4	274.0	None	8.9-272.0	218.0 - 218.9	0.9	2,200			0.063	
				222.3 - 223.0	0.7	260			<0.010	
D-5	310.0	None	8.0-307.0	296.0 - 296.8	0.8	3,400			0.13	
				298.3 - 299.8	1.5	960			0.032	
D-6	364.0	None	9.8-334.0	291.5 - 292.6	1.1	320			<0.010	
				295.5 - 297.3	1.8	560			0.012	
				300.2 - 301.5	1.3	44,000			1.05	
D-7	451.0	None	8.4-451.0	396.0 - 396.9	0.9	260			<0.010	
				432.0 - 433.0	1.0	240			<0.005	
				436.0 - 437.4	1.4	460			<0.010	
				438.2 - 439.0	0.8	360			<0.010	
D-8	240.0	None	8.2-239.0	204.6 - 206.4	1.8	250			<0.005	
				210.2 - 212.5	2.3	280			<0.005	
				212.5 - 213.5	1.0	280			<0.010	
				213.5 - 215.6	2.1	360			<0.010	
				215.6 - 217.0	1.4	540			0.012	
				217.7 - 218.5	0.8	500			0.015	
				221.0 - 222.0	1.0	2,200			0.064	

* From top to bottom depths

Pacific Uranium Company
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-9	240.5	None	9.2-240.5	222.8 - 224.9	2.1	560			0.011	
				225.0 - 225.8	0.8	520			0.015	
				230.8 - 231.7	0.9	240			<0.005	
				234.0 - 235.0	1.0	14,000			0.50	
				235.0 - 235.9	0.9	10,000			0.36	
D-10				Plugged didn't log the hole						
D-11	385.5	None	103.5-385.5	363.6 - 364.9	1.3	16,000			0.50	
				366.7 - 367.6	0.9	1,300			0.032	
				369.3 - 371.2	1.9	1,000			0.035	
D-12	266.0	None	140.1-260.2	177.5 - 180.0	2.5	210			<0.005	
				184.5 - 187.0	2.5	300			<0.010	
				189.3 - 190.5	1.2	220			<0.005	
				193.5 - 194.5	1.0	360			<0.010	
				219.4 - 220.6	1.2	12,000			0.40	
				220.6 - 221.5	0.9	900			0.032	
				221.5 - 222.6	1.1	5,000			0.18	
				243.3 - 244.4	1.1	310			<0.010	
				250.2 - 251.5	1.3	540			0.012	
				251.5 - 253.0	1.5	440			<0.010	
				253.0 - 254.2	1.2	420			<0.010	
				255.1 - 256.2	1.1	400			<0.010	
D-13	244.0	None	10.3-243.0	189.5 - 191.1	1.6	280			<0.005	
				203.8 - 204.5	0.7	220			<0.005	
				221.8 - 222.5	0.7	240			<0.010	
				231.6 - 233.1	1.5	240			<0.005	
				236.0 - 237.0	1.0	220			<0.005	
				237.4 - 238.6	1.2	380			<0.010	
				238.6 - 240.0	1.4	360			<0.010	

* From top to bottom depths

Pacific Uranium Co.
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-19	198.0	None	6.6-175.0	100.0 - 101.0	1.0	210			<0.005	
				104.0 - 104.8	0.8	6,000			0.29	
				104.8 - 107.0	2.2	1,400			0.028	
				107.0 - 108.0	1.0	68,000			5.0	
				108.0 - 109.1	1.1	40,000			1.5	
				111.5 - 112.9	1.4	320			<0.010	
				115.1 - 116.0	0.9	1,200			0.035	
				145.7 - 146.6	0.9	320			<0.010	
				152.0 - 152.9	0.9	12,000			0.43	
				164.3 - 165.4	1.1	260			<0.005	
D-24	181.7	None	5.5-181.7	163.5 - 164.7	1.2	230			<0.005	
				172.6 - 175.5	2.9	240			<0.005	
				177.5 - 178.3	0.8	580			0.018	
D-25	265.4	None	97.2-265.4	Barren						
D-27	215.0	None	6.5-210.5	Barren						

* From top to bottom depths

DMEA
Date Rec'd.
JUN 20 1956
BUREAU OF MINES
Denver, Colorado

Pacific Uranium Co.
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-1	319.8	None	8.6-319.0	283.0 - 284.4	1.4	280			<0.010	
				307.8 - 308.5	0.8	1,600			0.046	
				311.5 - 312.3	0.8	240			0.005	
				314.5 - 315.8	1.3	260			<0.005	
				316.4 - 317.3	0.9	400			0.011	
				317.3 - 317.9	0.6	320			0.010	
D-2	379.0	None	243.3-363.7	324.4 - 325.3	0.9	260			<0.010	
				325.3 - 326.8	1.5	260			<0.005	
D-3	246.0	None	7.6-244.0	220.6 - 221.5	0.9	200			<0.005	
				225.1 - 226.7	1.6	200			<0.005	
				226.7 - 227.6	0.9	500			0.014	
D-4	274.0	None	8.9-272.0	218.0 - 218.9	0.9	2,200			0.063	
				222.3 - 223.0	0.7	260			<0.010	
D-5	310.0	None	8.0-307.0	296.0 - 296.8	0.8	3,400			0.13	
				298.3 - 299.8	1.5	960			0.032	
D-6	364.0	None	9.8-334.0	291.5 - 292.6	1.1	320			<0.010	
				295.5 - 297.3	1.8	560			0.012	
				300.2 - 301.5	1.3	44,000			1.05	
D-7	451.0	None	8.4-451.0	396.0 - 396.9	0.9	260			<0.010	
				432.0 - 433.0	1.0	240			<0.005	
				436.0 - 437.4	1.4	460			<0.010	
				438.2 - 439.0	0.8	360			<0.010	
D-8	240.0	None	8.2-239.0	204.6 - 206.4	1.8	250			<0.005	
				210.2 - 212.5	2.3	280			<0.005	
				212.5 - 213.5	1.0	280			<0.010	
				213.5 - 215.6	2.1	360			<0.010	
				215.6 - 217.0	1.4	540			0.012	
				217.7 - 218.5	0.8	500			0.015	
				221.0 - 222.0	1.0	2,200			0.064	

* From top to bottom depths

Pacific Uranium Company
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-9	240.5	None	9.2-240.5	222.8 - 224.9	2.1	560			0.011	
				225.0 - 225.8	0.8	520			0.015	
				230.8 - 231.7	0.9	240			<0.005	
				234.0 - 235.0	1.0	14,000			0.50	
				235.0 - 235.9	0.9	10,000			0.36	
D-10				Plugged didn't log the hole						
D-11	385.5	None	103.5-385.5	363.6 - 364.9	1.3	16,000			0.50	
				366.7 - 367.6	0.9	1,300			0.032	
				369.3 - 371.2	1.9	1,000			0.035	
D-12	266.0	None	140.1-260.2	177.5 - 180.0	2.5	210			<0.005	
				184.5 - 187.0	2.5	300			<0.010	
				189.3 - 190.5	1.2	220			<0.005	
				193.5 - 194.5	1.0	360			<0.010	
				219.4 - 220.6	1.2	12,000			0.40	
				220.6 - 221.5	0.9	900			0.032	
				221.5 - 222.6	1.1	5,000			0.18	
				243.3 - 244.4	1.1	310			<0.010	
				250.2 - 251.5	1.3	540			0.012	
				251.5 - 253.0	1.5	440			<0.010	
				253.0 - 254.2	1.2	420			<0.010	
				255.1 - 256.2	1.1	400			<0.010	
D-13	244.0	None	10.3-243.0	189.5 - 191.1	1.6	280			<0.005	
				203.8 - 204.5	0.7	220			<0.005	
				221.8 - 222.5	0.7	240			<0.010	
				231.6 - 233.1	1.5	240			<0.005	
				236.0 - 237.0	1.0	220			<0.005	
				237.4 - 238.6	1.2	380			<0.010	
				238.6 - 240.0	1.4	360			<0.010	

* From top to bottom depths

Pacific Uranium Co.
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-19	198.0	None	6.6-175.0	100.0 - 101.0	1.0	210			<0.005	
				104.0 - 104.8	0.8	6,000			0.29	
				104.8 - 107.0	2.2	1,400			0.028	
				107.0 - 108.0	1.0	68,000			5.0	
				108.0 - 109.1	1.1	40,000			1.5	
				111.5 - 112.9	1.4	320			<0.010	
				115.1 - 116.0	0.9	1,200			0.035	
				145.7 - 146.6	0.9	320			<0.010	
				152.0 - 152.9	0.9	12,000			0.43	
				164.3 - 165.4	1.1	260			<0.005	
D-24	181.7	None	5.5-181.7	163.5 - 164.7	1.2	230			<0.005	
				172.6 - 175.5	2.9	240			<0.005	
				177.5 - 178.3	0.8	580			0.018	
D-25	265.4	None	97.2-265.4	Barren						
D-27	215.0	None	6.5-210.5	Barren						

* From top to bottom depths

DMEA
Date Rec'd.

JUN 20 1956

BUREAU OF MINES

Pacific Uranium Co.
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-1	319.8	None	8.6	319.0	283.0	284.4	1.4	280			<0.010	
					307.8	308.5	0.8	1,600			0.046	
					311.5	312.3	0.8	240			0.005	
					314.5	315.8	1.3	260			<0.005	
					316.4	317.3	0.9	400			0.011	
					317.3	317.9	0.6	320			0.010	
D-2	379.0	None	243.3	363.7	324.4	325.3	0.9	260			<0.010	
					325.3	326.8	1.5	260			<0.005	
D-3	246.0	None	7.6	244.0	220.6	221.5	0.9	200			<0.005	
					225.1	226.7	1.6	200			<0.005	
					226.7	227.6	0.9	500			0.014	
D-4	274.0	None	8.9	272.0	218.0	218.9	0.9	2,200			0.063	
					222.3	223.0	0.7	260			<0.010	
D-5	310.0	None	8.0	307.0	296.0	296.8	0.8	3,400			0.13	
					298.3	299.8	1.5	960			0.032	
D-6	364.0	None	9.8	334.0	291.5	292.6	1.1	320			<0.010	
					295.5	297.3	1.8	560			0.012	
					300.2	301.5	1.3	44,000			1.05	
D-7	451.0	None	8.4	451.0	396.0	396.9	0.9	260			<0.010	
					432.0	433.0	1.0	240			<0.005	
					436.0	437.4	1.4	460			<0.010	
					438.2	439.0	0.8	360			<0.010	
D-8	240.0	None	8.2	239.0	204.6	206.4	1.8	250			<0.005	
					210.2	212.5	2.3	280			<0.005	
					212.5	213.5	1.0	280			<0.010	
					213.5	215.6	2.1	360			<0.010	
					215.6	217.0	1.4	540			0.012	
					217.7	218.5	0.8	500			0.015	
					221.0	222.0	1.0	2,200			0.064	

* From top to bottom depths

Pacific Uranium Company
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-9	240.5	None	9.2-240.5	222.8 - 224.9	2.1	560			0.011	
				225.0 - 225.8	0.8	520			0.015	
				230.8 - 231.7	0.9	240			<0.005	
				234.0 - 235.0	1.0	14,000			0.50	
				235.0 - 235.9	0.9	10,000			0.36	
D-10				Plugged didn't log the hole						
D-11	385.5	None	103.5-385.5	363.6 - 364.9	1.3	16,000			0.50	
				366.7 - 367.6	0.9	1,300			0.032	
				369.3 - 371.2	1.9	1,000			0.035	
D-12	266.0	None	140.1-260.2	177.5 - 180.0	2.5	210			<0.005	
				184.5 - 187.0	2.5	300			<0.010	
				189.3 - 190.5	1.2	220			<0.005	
				193.5 - 194.5	1.0	360			<0.010	
				219.4 - 220.6	1.2	12,000			0.40	
				220.6 - 221.5	0.9	900			0.032	
				221.5 - 222.6	1.1	5,000			0.18	
				243.3 - 244.4	1.1	310			<0.010	
				250.2 - 251.5	1.3	540			0.012	
				251.5 - 253.0	1.5	440			<0.010	
				253.0 - 254.2	1.2	420			<0.010	
				255.1 - 256.2	1.1	400			<0.010	
D-13	244.0	None	10.3-243.0	189.5 - 191.1	1.6	280			<0.005	
				203.8 - 204.5	0.7	220			<0.005	
				221.8 - 222.5	0.7	240			<0.010	
				231.6 - 233.1	1.5	240			<0.005	
				236.0 - 237.0	1.0	220			<0.005	
				237.4 - 238.6	1.2	380			<0.010	
				238.6 - 240.0	1.4	360			<0.010	

* From top to bottom depths

Pacific Uranium Co.
Green River, Utah
DMEA DOCKET NO. 3928

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
D-19	198.0	None	6.6-175.0	100.0 - 101.0	1.0	210			<0.005	
				104.0 - 104.8	0.8	6,000			0.29	
				104.8 - 107.0	2.2	1,400			0.028	
				107.0 - 108.0	1.0	68,000			5.0	
				108.0 - 109.1	1.1	40,000			1.5	
				111.5 - 112.9	1.4	320			<0.010	
				115.1 - 116.0	0.9	1,200			0.035	
				145.7 - 146.6	0.9	320			<0.010	
				152.0 - 152.9	0.9	12,000			0.43	
				164.3 - 165.4	1.1	260			<0.005	
D-24	181.7	None	5.5-181.7	163.5 - 164.7	1.2	230			<0.005	
				172.6 - 175.5	2.9	240			<0.005	
				177.5 - 178.3	0.8	580			0.018	
D-25	265.4	None	97.2-265.4	Barren						
D-27	215.0	None	6.5-210.5	Barren						

* From top to bottom depths

Surname copy

Murphy
Selfridge
FMurphy

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

JUN 25 1956

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

Re: Docket No. DMEA-3928 (Uranium)
Contract No. Ida-E 926
Pacific Uranium Mines Company
Green River Claims
Emery County, Utah

Dear Mr. Traver:

In accordance with your memorandum of June 7, 1956, we are enclosing the original and seven copies (2 extra) of a proposed Amendment No. 2, to the above-referenced contract.

The proposed amendment has been signed by the Administrator. If you and the Operator find the amendment in order, please insert the date of execution and have an authorized representative of the company sign the original and five copies. Thereafter, kindly distribute the copies in the usual manner.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

P. F. Yopes

Member, Bureau of Mines (GCS)

Thor H. Kiilsgaard

Member, Geological Survey (GCS)

FMMurphy/rem
6-22-56
cc to: Admr. Reading File
Operating Comm.
Docket
Messrs. THKiilsgaard, Rm. 5224
JECrawford, Rm. 3643
JOHosted, Rm. 3210, GSA
Code 700
Mr. Murphy

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

RECEIVED
JUN 25 1956

224 New Customhouse
Denver 2, Colorado

June 22, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3928 (Uranium), Contract Idm-E926
Pacific Uranium Mines Company, Emery County, Utah

Enclosed are the original and two copies of Amendment No. 1 to Contract Idm-E926, which has been executed under authority delegated to this office to authorize the omitting from drilling of Holes D-23, D-26 and D-29 and to approve revised locations for the drilling of Holes D-14, D-17 and D-18.

Copies of the amendment have been distributed to the Operator, Finance Office, Region III, and other offices concerned.

Data in support of the amendment were forwarded by memorandum of June 7, 1956, in conjunction with the proposed amendment to modify the contract provisions to authorize bulldozing.

W. M. Traver

Enc.

W. M. Traver

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

RECEIVED
JUN 21 1956

June 19, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Field Team, Region III

Subject: Docket DMEA 4104 (Uranium) Caleb V. Haynes, Jr. and Glen A. Boyd, Jr., (Black Knight and Billikin Lodes), Jefferson County, Colorado

Enclosed are nine copies of Figure 2 and Figure 4 for possible use in the contract on the subject application.

The Applicants telephoned this office June 18 and stated that the executed copies of Owner's Consent to Lien would be forwarded this office in a few days.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

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

RECEIVED
JUN 21 1956

224 New Customhouse
Denver 2, Colorado

June 19, 1956

Mr. Hugh W. Evans, Chief Engineer
Pacific Uranium Mines Company
1924 White Avenue
Grand Junction, Colorado

Re: Docket DMEA-3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
Ajax claims, et al.
Emery County, Utah

Dear Mr. Evans:

Your Monthly Progress Report and Voucher for the month of April, 1956 has been received in this office and is being processed for payment.

Inasmuch as the contract stipulates that samples shall be analyzed for both U_3O_8 and V_2O_5 content, no reimbursement can be made for analyses for U_3O_8 content alone. We are, therefore, disallowing the amount of $7.00 reported for two Uranium analyses at $3.50 each. If you desire, you may have the two samples (2062 and 2063) analyzed for V_2O_5 and submit a new claim for the cost of analysis of the two samples at the stipulated contract rate of $5.00 per sample. Until such time as you submit the new claim, please revise all subsequent reports on Forms MF-104 and MF-104A to reflect the above disallowance.

For your information, under Contract Idm-E926, documentation of costs is necessary only for the drilling performed. Costs relative to incidental allowance and assaying need not be documented; however, copies of the laboratory assay certificates showing analytical results for all samples must accompany your monthly reports.

We note that the date was not shown on Forms MF-104 and MF-104A which were submitted with the April, 1956 report. Please include the date of execution on all future reports.

Very truly yours,

W. M. TRAVER

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

Copy to:
Irving Klubok, Secretary
Pacific Uranium Mines Company
122 1/2 S. Vermont Avenue
Los Angeles 4, California

JDC:jy
cc: Corresp. E926
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

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

224 New Customhouse
Denver 2, Colorado

June 7, 1956

Mr. Hugh W. Evans, General Manager
Pacific Uranium Mines Company
124 White Avenue
Grand Junction, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926
Pacific Uranium Mines Company
Emery County, Utah

Dear Mr. Evans:

Reference is made to your letter of May 29, 1956, wherein you request that funds unexpended by reason of not drilling holes D-23, D-26, and D-29 be apportioned to bulldozing work under the three stages.

The matter will require an amendment to the contract, the preparation of which is not within the authority delegated to this office. Therefore your request has been forwarded to the Washington Office, DMEA, for their consideration and appropriate action, on which we will advise you further at an early date.

Very truly yours,

W. M. TRAVER

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

JWT:prl
cc: Chairman, Oper. Comm. (2)
Harshman
Shaw (2)
Hasler
Townsend
Corres. file
Chron.

DRAFT
FMMurphy/ai
6/12/56

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA-3928
CONTRACT NO. IDM-E926

AMENDMENT NO. 2

It is agreed this _____, 1956, between the United States of America, acting through the Department of Interior, Defense Minerals Exploration Administration, hereinafter called the "Government" and Pacific Uranium Mines Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E926, Docket No. DMEA-3928, dated March 9, 1956, hereinafter called the "Contract," that effective June 1, 1956, the Contract is amended as follows:

Under "Exhibit 'A' Description of the Work Stage I" delete the first sentence in paragraph one and replace with the following: "Stage I shall consist of drilling not in excess of thirty one (31) holes, totaling an estimated 7,200 feet of non-core and 2,480 feet of core drilling;" and to the final paragraph add:

"Nor in excess of 20 hours of bulldozer work shall be performed on access roads or drill sites."

Under the same heading the following shall be added to the final paragraph in Stage II:

"Nor in excess of 80 hours of bulldozer work shall be performed on access roads or drill sites."

Under the same heading the following shall be added to the final paragraph in Stage III:

"Nor in excess of 61 hours of bulldozer work shall be performed on access roads or drill sites."

Under "Estimated Costs of the Project" all the words and figures are deleted and replaced by the following:

Stage I

Actual Costs

Category (1) Independent Contracts 1/

7,200 feet non-core drilling @ $1.50/ft	$10,800.00	
2,480 feet core drilling @ $3.50/ft.	8,680.00	
Bulldozing access roads and drill sites, 20 hrs. @ $11.00/hr.	220.00	
		$19,700.00

Fixed Unit Costs

Incidental allowance 2/ for each foot of drilling completed ~~10,802~~ 9680 feet @ $0.125/ft.	~~1,350.25~~ 1210.00	
Chemical analyses for U_3O_8 and V_2O_5 30 samples @ $5.00 each	150.00	
		~~1,500.25~~ 1360.00
Total Estimated Costs Stage I		~~$21,200.25~~ $21,060.00

Stage II

Actual Costs

Category (1) Independent Contracts 1/

13,000 feet non-core drilling @ $1.50/ft.	$19,500.00	
2,000 feet core drilling @ $3.50/ft.	7,000.00	
Bulldozing access roads and drill sites, 80 hrs. @ $11.00/hr.	880.00	
		$27,380.00

Fixed Unit Costs

Incidental allowance 2/ for each foot of drilling completed 15,000 feet @ $0.125/ft.	1,875.00	
Chemical analyses for U_3O_8 and V_2O_5 45 samples @ $5.00 each	225.00	
		2,100.00
Total Estimated Costs Stage II		$29,480.00

Stage III

Actual Costs

Category (1) Independent Contracts 1/

10,800 feet non-core drilling @ $1.50/ft.	16,200.00	
1,200 feet core drilling @ $3.50/ft.	4,200.00	
Bulldozing access roads and drill sites 61 hrs. @ $11.00/hr.	671.00	
		21,071.00

Fixed Unit Costs

Incidental allowance 2/ for each foot of drilling completed		
12,000 feet @ $0.125/ft.	1,500.00	
Chemical analyses for U_3O_8 and V_2O_5		
39 samples @ $5.00 each	195.00	
		1,695.00
Total Estimated Costs Stage III		$22,766.00

1/ Categories (2) through (7) do not apply to this contract.

2/ Includes all costs whatsoever (chemical analyses excepted) that are not included under "Independent Contracts" and includes such items as supervision, radiometric logging of holes, etc., which would otherwise be allowable under Categories (2) through (7) of the contract form.

S U M M A R Y

Total Estimated Cost Stage I	$ 21,060.00 ~~$21,200.25~~	
Total Estimated Cost Stage II	29,480.00	
Total Estimated Cost Stage III	22,766.00	
Total Estimated Cost of Project (~~rounded~~)		$ 73,306.00 ~~$73,446.00~~
Government Participation @ 75% (rounded)		$ 54,980.00 ~~$55,085.00~~

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

224 New Customhouse
Denver 2, Colorado

June 7, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3928 (Uranium), Contract Idm-E926, Pacific Uranium Mines Company (Green River Property), Emery Co., Utah.

Enclosed is the following material pertaining to amendments to the subject contract:

1. Original and three copies of the Operator's letter of May 1, 1956.

2. Original and three copies of a joint memorandum, dated May 23, 1956 from Carl Belser, Mining Engineer, Bureau of Mines, and F. M. Byers, Jr., Geologist, Geological Survey.

3. Original and three copies of the Operator's letter of May 29, 1956 pertaining to the relocation of drill holes D-14, D-17, D-18, and D-23.

4. Original and three copies of the Operator's letter of May 29, 1956, relative to the omitting of holes D-26 and D-29 and the use of the funds saved through omitting the holes for bulldozing operations.

5. Original and three copies of a joint memorandum, dated June 1, 1956, from M. F. Byers, Jr., Geologist, Geological Survey, and M. H. Salsbury, Mining Engineer, Bureau of Mines.

6. Four copies of proposed Amendment No. 1, which has been prepared under authority delegated to this office to omit from drilling holes D-23, D-26, and D-29, and change in the locations for the drilling of holes D-14, D-17, and D-18.

The amendment under item 6 above has been forwarded to the Operator for signature and the Washington Office copies of the executed amendment will be forwarded immediately upon return to this office.

The Operator requests that the funds saved by not drilling holes D-23, D-26 and D-29 be used for bulldozing operations in the preparation of drill sites, an item of work which was overlooked in both the Operator's original application for Government assistance in the exploration work and the report by the Government examiners.

The field examiners, in their report under item 5, provide an analysis of the matter and a breakdown of the bulldozer time to be allotted to each of the three stages. To provide bulldozer time for Stage I as they have outlined would necessitate that the amendment be made retroactive to the date of the contract. However, it is the opinion of this office that bulldozer time should only be provided for the preparation of Stage I drill sites D-14-B, D-17-B, and D-18-B.

Preparation of an amendment adding another work category is not deemed within the authority delegated to this office. Therefore the matter is forwarded to you for your consideration and appropriate action, with the recommendation that an amendment be prepared as recommended by the field examiners subject to the limitations mentioned above pertaining to Stage I bulldozing, which would be accomplished by making the amendment effective June 1, 1956, which is also the effective date of proposed Amendment No. 1 authorizing the drilling of revised holes D-14-B, D-17-B, and D-18-B.

W. M. Traver

W. M. Traver

Enclosures

John P. Kellogg, *Manager*
Robert L. Redmond, *Chief Geologist*
Main Office in Los Angeles

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

DMEA
Date Rec'd.
MAY 2 1956
BUREAU OF MINES
Denver, Colorado

May 1, 1956

Mr. W. M. Traver
Executive Officer
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926

Dear Mr. Traver:

Approval is requested to move four drill hole locations as shown both below and on the enclosed map. The original hole locations are impractical because of exceedingly rough terrain. Mr. J. W. Hasler has been consulted on this subject and is in accord with these suggested moves.

Drill Hole Location Changes

Hole No.	Change		Collar	Coordinates	
	Direction	Distance	Elevation	North	East
D-14A	N77 53'W	112'	4412	500,370	495,158
D-17A	N77 53'W	60'	4397	499,979	495,085
D-18A	S18 14'W	212'			
	N77 53'W	58'	4398	499,693	495,411
D-23A	S18 14'W	162'	4374	498,672	494,716

Any moves of less than fifty feet are not being considered "a material change".

Yours truly,

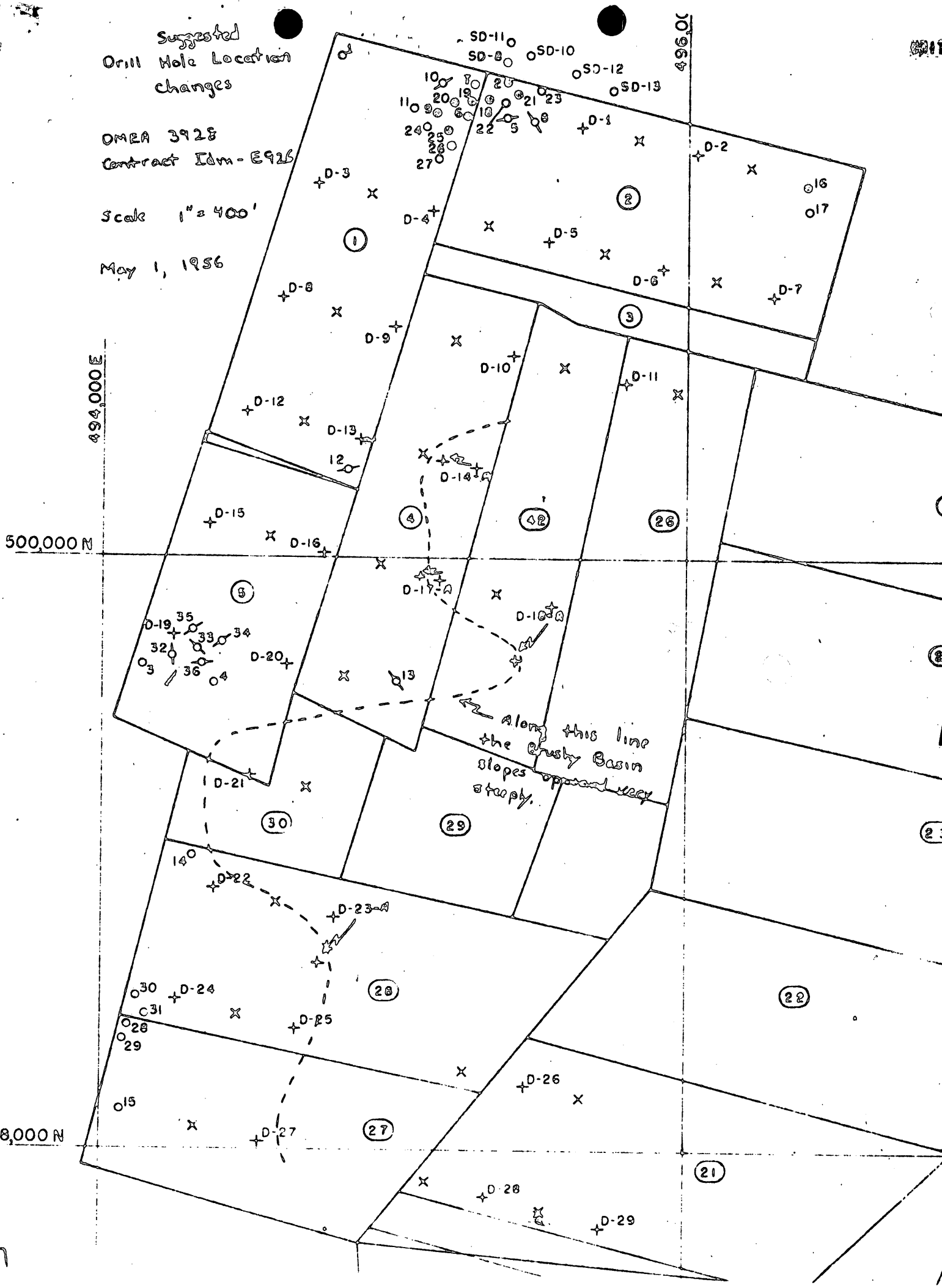
Hugh W. Evans
Chief Engineer

Suggested
Drill Hole Location
changes

OMBA 3928
Contract Idm-E925

Scale 1" = 400'

May 1, 1956



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

DMEA
Date Rec'd.
MAY 24 1956
RECEIVED
JUN 11 1956
BUREAU OF MINES
Denver, Colorado

May 23, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: J. W. Hasler *Dbw for JWH*
E. N. Harshman *Dbw for ENH*
J. F. Shaw *JFS*

From: Carl Belser
F. M. Byers, Jr.

Subject: Joint interim report, DMEA Docket 3928 (Uranium), Contract Idm-E 926, Pacific Uranium Mines Company (Green River claims), Emery County, Utah

INTRODUCTION

On May 1, 1956, Pacific Uranium Mines, through their chief engineer, Mr. Hugh W. Evans, requested moving four stage I drill sites under the subject contract to alternate sites as shown on the accompanying sketch map, figure 1 (See also map submitted with Mr. Evans' letter dated May 1, 1956). Mr. Evans had previously discussed moving these sites with DMEA geologists J. William Hasler and F. M. Byers, Jr. at the Grand Junction office and was told to submit the proposal in writing. On May 9, the Executive Officer in a memorandum to E. N. Harshman and John F. Shaw pointed out that three of the four proposed alternate drill sites would be closer than the 400-foot spacing allowed under stage I, contract Idm-E 926.

A memorandum report giving recommendations on the proposed changes was requested.

PRESENT STATUS AS OF MAY 11, 1956

F. M. Byers, Jr., U. S. Geological Survey, visited the subject property on May 11, 1956, to appraise the results of drilling to date and the necessity for the proposed change in the four drill sites. Mr. Evans could not be contacted, but John Volgamore, geologist for Pacific Uranium accompanied the DMEA geologist on the property. All stage I drill sites had been prepared excepting sites, D-14, D-17, D-18, and D-23, which the operator has requested to be moved.

Drill cores of the ore-bearing sandstone in holes adjacent to these sites were inspected and found to be favorable, excepting, D-25, (See fig. 1, attached) which consists of alternating thin beds of red-green mottled sandstone and mudstone.

Nineteen of the 34 stage I holes had been drilled at the time of the inspection. Assay and gamma-ray probe results have not been completely evaluated, owing to the fact that the operator has not at the time of writing submitted a monthly report and complete Survey gamma-ray logs are not yet available. The ore-bearing and mineralized holes shown on the attached map were taken from the operator's work sheet and are, therefore, tentative. D-19 is the most favorable hole drilled to date with 117 feet of ore-bearing sandstone that contained as much as 5 feet of 0.78 % U_3O_8, at a depth

of about 100 feet. Stage I drilling was expected to be complete sometime between June 1 and June 10.

PROPOSED CHANGES IN CONTRACT

The justification for each of the four drill sites which the operator wants moved is considered below. Every effort was made to maintain a spacing of approximately 400 feet on the first stage in order to obtain maximum geologic coverage.

Drill hole site D-14 is recommended to be moved to D-14B (fig. 1) 30 to 40 feet northeasterly from site D-14. This site would be about 380 feet from mineralized hole D-10, but this is not considered a significant deviation from the 400-foot spacing outlined in the contract. Bulldozing a road and drill site preparation (see fig. 1) on the steep slope (30 - 35°) underlain by the Brushy Basin member of the Jurassic Morrison formation, might take as much as 10 hours' work. One talus block of the Buckhorn conglomerate four feet in average diameter, may require blasting; other talus blocks, of the Buckhorn conglomerates litter the slope but are three feet or less in diameter. Average grade of the proposed bulldozer road (fig. 1) would be about 15 percent with local steep grades up to 20 percent. Sites D-14 and D-14A (fig. 1) are recommended to be abandoned. Site D-14 is not easily accessible without considerable blasting and site D-14A is considerably closer than 400 feet to D-13.

Site D-17 can be prepared essentially as originally located (fig. 1) by possibly no more than four hours bulldozer work. Actually, two routes of 17 percent grade (only one of which is shown on figure 1) are possible to the head of what appears to be an alluvial fan. No talus blocks larger than three feet are present along the path of the proposed routes. D-17A should not be drilled, because it is considerably closer than 400 feet to D-16.

Site D-18 falls on a steep ledge, which is inaccessible. Furthermore, large talus blocks make drilling site preparation impracticable for 100 feet around site D-18. The operator's alternate proposed site D-18A (fig. 1) is essentially the best alternate to D-18, except that if the alternate site is moved 20 feet north-northeasterly, stage III drill sites, if justified, could easily be prepared 100 feet northerly and southerly without moving large talus blocks. This drill site would be about 380 feet from D-17; this distance is believed close enough to the 400-foot minimum stage I spacing authorized by the contract. This second alternate site, D-18B (fig. 1), is, therefore, recommended.

Drill hole site, D-23, likewise cannot be drilled at its original location without excessive blasting, and there are no alternate sites within about 100 feet (fig. 1). The alternate site, D-23A, proposed by the operator, is only 230 feet from an unfavorable stage I hole, D-25, and, therefore, cannot be approved as a stage I drill hole. Because of the unfavorableness of hole

D-25 and the lack of any nearby alternate site for D-23, it is recommended that drill hole D-23 be abandoned under stage I. Alternate, readily accessible sites, however, do exist along the easterly projection of drill fence, D-22 to D-23, in the area 400 feet northerly from drill site D-26 (fig. 1). Stage II holes might later be recommended in this area, provided that hole D-26 proves favorable.

Finally, the incidental allowance of $0.125 per foot under contract Idm-E 926 is not nearly enough to cover the cost of core boxes, supervision, radiometric logging of holes, access roads to drill sites, and drill site preparation. It is, therefore, recommended that the contract be amended to allow bulldozer work as an independent contract not to exceed $11.00 per hour, the going rate in the district.

It is further recommended that the contract be amended to allow unexpended funds for drilling to be allocated for bulldozer work, with the limitation that the total of the actual costs (independent contracts, including bulldozer work) plus the fixed unit costs do not exceed the total estimated costs for any stage (e.g., stage I $23,143.25).

SUMMARY AND CONCLUSIONS

In summary, it is recommended that contract Idm-E 926 be amended as stated in the preceeding paragraph, and, further, that

work approval be given for the following changes in the drill sites (fig. 1):

Drill site	Change from original site Direction	Distance	Coordinates (fig. 1) North	East
D-14B	N. 73° E.	35 feet	500,310	495,300
D-17	None		499,925	495,145
D-18B	N. 20° E.	20 feet	499,665	495,415
D-23	abandoned			

These changes and proposed amendments were discussed on May 14 in a conference including J. W. Hasler, F. M. Byers, Jr., representing DMEA, and John P. Kellogg, manager for Pacific Uranium Mines. Mr. Kellogg concurs with the proposed changes and agreed to send a request in behalf of the company to the Executive Officer.

Carl Belser

Carl Belser, Mining Engineer

D R Yackavan

for F. M. Byers, Jr., Geologist

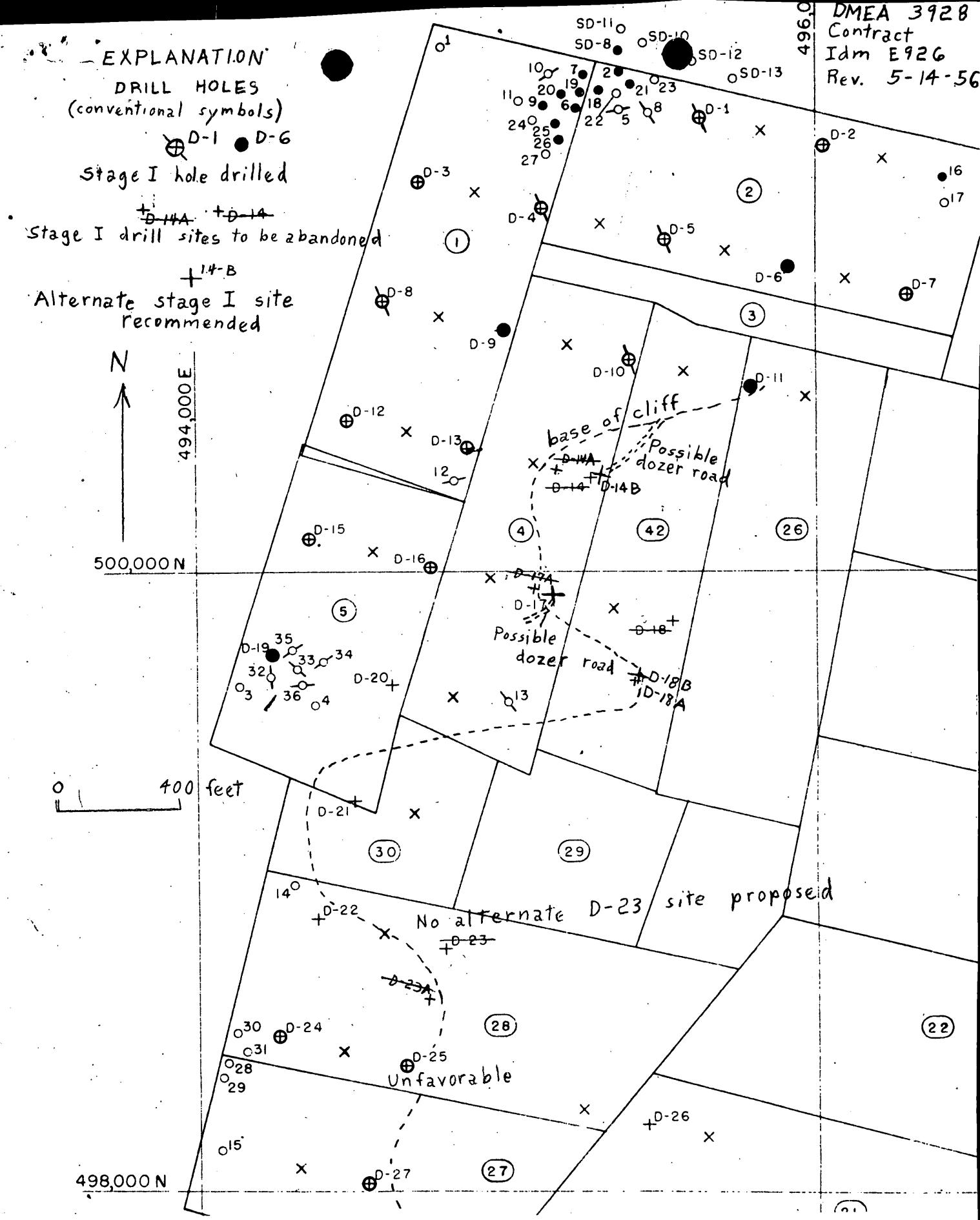


FIGURE 1. LOCATIONS OF ALTERNATE PROPOSED STAGE I DRILL SITES AND STAGE I HOLES DRILLED TO DATE, PACIFIC URANIUM PROPERTY, EMERY COUNTY, UTAH

John P. Kellogg, *Manager*
Robert L. Redmond, *Chief Geologist*
Main Office in Los Angeles

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

DMEA
Date Rec'd
MAY 31 1956
BUREAU OF MINES
Denver, Colorado

May 29, 1956

Mr. W. M. Traver
Executive Officer
224 New Custom House
Denver 2, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926

Dear Mr. Traver:

Reference is made to my letter dated May 1, 1956, concerning the moving of drill holes D-14, 17, 18, and 23. On the basis of a field inspection made by Mr. Frank Byer, approval is requested to make instead the moves shown below:

Hole	Direction	Distance	From	Remarks
D-14-B	S 87° E	130'	D-14-A	
D-17				Leave in original location
D-18-B	N 15° E	20'	D-18-A	
D-23				On the basis of D-25, this area appears unfavorable, therefore, omit hole.

In addition to omitting D-23, we would like to suggest that D-26 and D-29 be omitted. These holes are located 400 feet N 15° E and 400 feet S 87° E, respectively, from D-28. The drill depths for these holes are almost beyond the economic limit for the size orebody expected, and after drilling D-24,25,27,30, and 33, it seems as though the section south of D-21 is not too favorable. If, after the completion of D-28,30,31, and 34 (all on 800-foot centers), there is good geologic evidence that the area around D-28 is more favorable than is now suspected, then it can be drilled with Stage II holes and footage.

John P. Kellogg, *Manager*
Robert L. Redmond, *Chief Geologist*
Main Office in Los Angeles

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

Docket DMEA 3928 (Uranium)
Contract Idm-E926

May 29, 1956
Page two

We anticipate completing Stage I early in June; therefore, we would appreciate an answer from you on this subject at the earliest possible date. Thank you,

Yours very truly,

Hugh W. Evans
(bc)

Hugh W. Evans
Chief Engineer

HWE/bc
Enc.- 5 c.c.
c.c. Mr. J. W. Hasler

John P. Kellogg, *Manager*
Robert L. Redmond, *Chief Geologist*
Main Office in Los Angeles

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

DMEA
Date Rec'd, May 29, 1956

MAY 31 1956

BUREAU OF MINES
Denver, Colorado

Mr. W. M. Traver
Executive Officer
224 New Custom House
Denver 2, Colorado

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E-926

Dear Mr. Traver:

It has become apparent in the operation of our DMEA Contract that insufficient funds are available for access roads and drill sites. This cost is presently included under the $0.125 per foot-drilled incidental allowance.

To better meet these bulldozing costs we request that, if authority is received to omit drill holes D-23, 26, and 29 (Reference is made to our letter dated May 29, 1956), this surplus authorized-drilling-money be allocated for access road and drill site preparations. By dropping these three holes, approximately $2,163 would be made available for this work.

Drill Hole	Estimated Depth	Cost Plug	Cost Core	Total
D-23	294	$321.00	$280.00	$601.00
D-26	397	475.50	280.00	755.50
D-29	431	526.50	280.00	806.50
Totals	1,122	$1,323.00	$840.00	$2,163.00

This sum would allow about 200 hours of bulldozer work at $11.00 per hour. On Stage I, 54.5 hours and $601.25 have been spent for this type of work. This would leave 145.5 hours and $1,561.75 for bulldozing on Stages II and III.

We hope that this suggestion will meet with your approval.

Yours very truly,

Hugh W. Evans (bc)

Hugh W. Evans
Chief Engineer

HWE/bc

Enc. - 5 c.c
c.c. J. W. Hasler

MINERAL DEPOSITS
DMEA
RECEIVED
JUN 4 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO
DMEA
Date Rec'd.
JUN 5 1956
BUREAU OF MINES
Denver, Colorado

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 360
Grand Junction, Colorado

June 1, 1956

RECEIVED
JUN 11 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: F. M. Byers, Jr.,
M. H. Salsbury

Through: E. N. Harshman
J. F. Shaw
J. William Hasler

Subject: Interim report recommending amendment for transfer of footage costs to bulldozing
DMEA 3928 (Uranium), contract Idm-E 926, Pacific Uranium, (Green River property), Emery County, Utah

INTRODUCTION

Reference is made to a joint interim report of the subject property dated May 11, 1956, by Carl Belser and F. M. Byers, Jr., in which relocation of stage I drill sites D-14, D-17, D-18, and D-23 was discussed. It was concluded that D-14 and D-17 could be drilled essentially in their original location with a little bulldozer work; it was also recommended that D-18 be moved in conformance with the operator's request to a new location designated D-18-A on figure 1, the new location being at least 400 feet from any other stage I drill hole as specified in the contract, and that D-23 be abandoned. It was further recommended that authorized but unexpended footage costs in any stage be allocated to bulldozing costs, but Selfridge and Traver verbally recommended to the inspecting team that a more specific recommendation would have to be made. The operator was also asked to submit a more concrete proposal.

In two letters, both dated May 29 to the Executive Officer, Mr. Hugh W. Evans, Chief Engineer for Pacific Uranium Mines, asked that not only D-23 but also D-26 and D-29 be abandoned and the footage costs, shown below, allocated for bulldozing:

Drill hole	Plug footage	Core footage	Plug cost	Core cost	Total
D-23	214	80	$321.00	$280.00	$601.00
D-26	317	80	475.50	280.00	755.50
D-29	351	80	526.50	280.00	806.50
Totals	882	240	1,323.00	840.00	2,163.00

The operator further requested that the approximately 200 hours (actually 196 hours plus a fraction) of bulldozing at $11.00 per hour thus made available be allocated thus:

Stage I	54.5 hours (for work already done)
Stage II and III	145.5 hours

RECOMMENDATIONS

The project was inspected by F. M. Byers, Jr., of the U. S. Geological Survey and Harry D. Robertson of the U. S. Bureau of Mines on May 29. Twenty-five of the 34 stage I holes had been drilled (fig. 1), including D-18-A at essentially the location requested in the operator's letter dated May 1 to the Executive Officer. Although the Executive Officer in a memorandum dated May 9 to Harshman and Shaw, indicated that the site of D-18-A was proper with respect to the minimum hole spacing of the contract under stage I, no work approval has yet been given. Mr. Evans explained that with three drill rigs working, it was necessary to keep them busy and hoped that approval of D-18-A would be forthcoming. As stated in the preceding interim report, D-18 could not be drilled economically at the original site because of a steep cliff and heavy talus. The geologic information gained is fully as valuable at the site used, and the move is not considered to have materially affected interpretation of favorability of the ground.

Inasmuch as the operator's request for the proposed changes was on record as of May 1, 1956, and action by the Field Team was not taken because full information had not been furnished and an evaluation in the field was necessary, it is recommended that hole No. D-18-A, as shown on figure 1, be authorized. It is also recommended that drill-sites D-23, D-26 and D-29 be abandoned as proposed by the operator because the sites may well be in unfavorable ground (fig. 1), and remaining holes on 800-foot centers are close spaced enough to determine the geologic potential of the area. Further drilling can be done in stage II if justified.

Estimated drilling footages in the holes recommended for abandonment amount to 882 feet of plug-bit drilling, and 240 feet of core drilling. The saving would be about $2,163.00 which would cover 196 hours of bulldozing at $11.00 per hour, the contract rate paid by the operator. Reference to the original report of examination on the subject project, indicates that the applicant failed to include bulldozing costs in his estimate, and no provision was made for them by the DMEA examiners. The contract on the project puts bulldozing costs under the incidental allowance of $0.125 per foot. In the opinion of the inspecting team, this amount will not cover site preparation.

DMEA 3928 6/1/56

It is recommended that an amendment to contract Idm-E 926 be authorized to permit allocation of funds saved by deletion of holes D-23, D-26, and D-29 to drill site preparation as follows:

Stage	I	54.5	hours	at	$11.00	per	hour	$601.25
"	II	80	"	"	"	"	"	880.00
"	III	61	"	"	"	"	"	671.00
								$2,152.25

The applicant requested that bulldozing funds for stages II and III be one item. However, definite allocations for each stage are suggested in line with normal DMEA contracts.

All items should be maximums, supported by invoiced costs from independent contractors. While the operator's written request for bulldozing funds is dated May 29, 1956, the need for such funds was discussed with the DMEA geologist as early as May 11, 1956, during a field inspection, and it is believed that a claim for bulldozing in stage I could be approved, if authorized by amendment.

F. M. Byers, Jr.

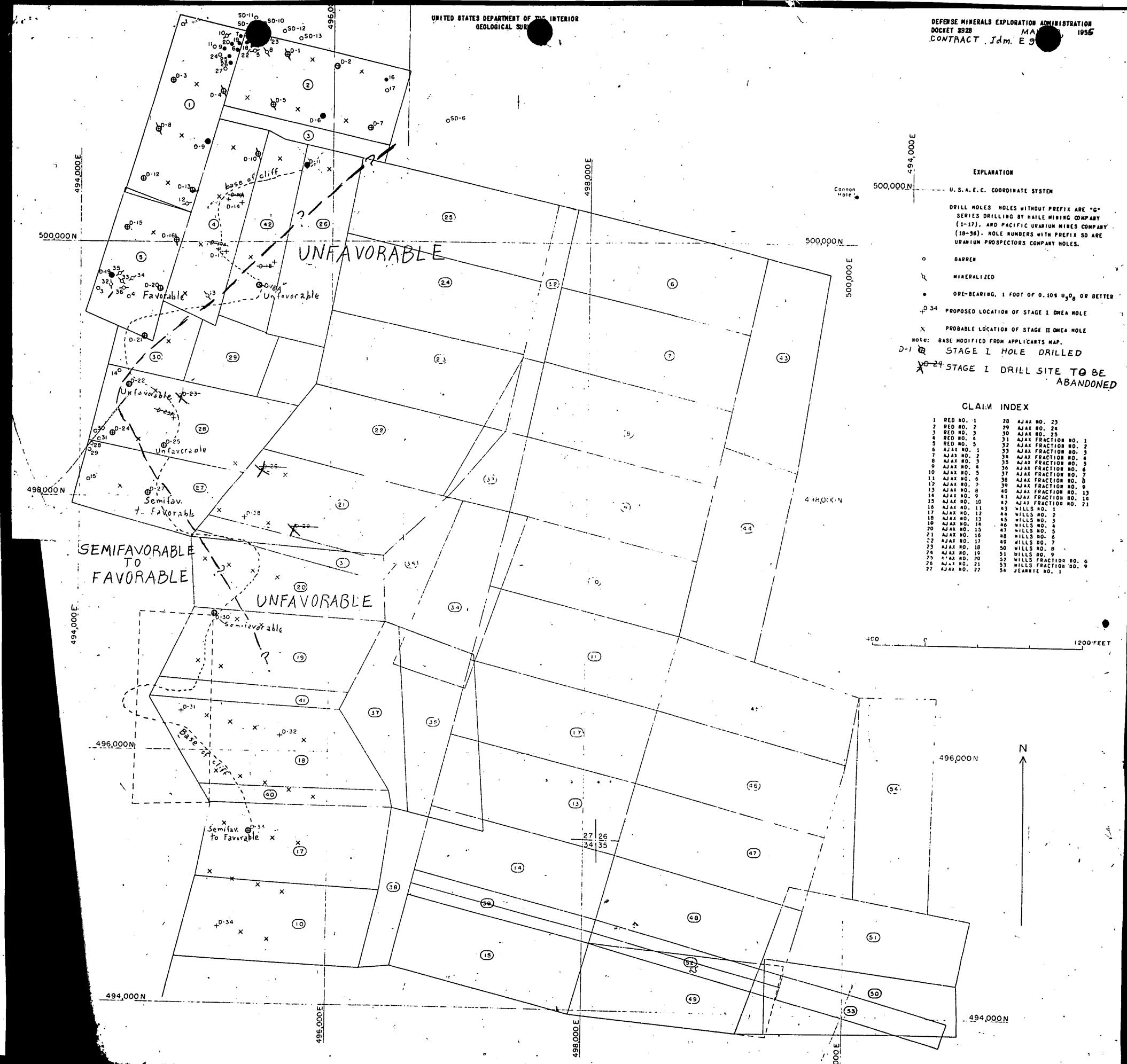
F. M. Byers, Jr.,
U. S. Geological Survey

M. H. Salsbury

M. H. Salsbury
U. S. Bureau of Mines

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3928 MAY 1956
CONTRACT Idm. E 9



EXPLANATION

500,000 N ——— U.S.A.E.C. COORDINATE SYSTEM

DRILL HOLES HOLES WITHOUT PREFIX ARE "G" SERIES DRILLING BY HAILE MINING COMPANY (1-17), AND PACIFIC URANIUM MINES COMPANY (18-36). HOLE NUMBERS WITH PREFIX SD ARE URANIUM PROSPECTORS COMPANY HOLES.

○ BARREN

MINERALIZED

● ORE-BEARING, 1 FOOT OF 0.10% U_3O_8 OR BETTER

+D 34 PROPOSED LOCATION OF STAGE I DMEA HOLE

X PROBABLE LOCATION OF STAGE II DMEA HOLE

Note: BASE MODIFIED FROM APPLICANTS MAP.

D-1 STAGE I HOLE DRILLED

~~D-29~~ STAGE I DRILL SITE TO BE ABANDONED

CLAIM INDEX

1	RED NO. 1	28	AJAX NO. 23
2	RED NO. 2	29	AJAX NO. 24
3	RED NO. 3	30	AJAX NO. 25
4	RED NO. 4	31	AJAX FRACTION NO. 1
5	RED NO. 5	32	AJAX FRACTION NO. 2
6	AJAX NO. 1	33	AJAX FRACTION NO. 3
7	AJAX NO. 2	34	AJAX FRACTION NO. 4
8	AJAX NO. 3	35	AJAX FRACTION NO. 5
9	AJAX NO. 4	36	AJAX FRACTION NO. 6
10	AJAX NO. 5	37	AJAX FRACTION NO. 7
11	AJAX NO. 6	38	AJAX FRACTION NO. 8
12	AJAX NO. 7	39	AJAX FRACTION NO. 9
13	AJAX NO. 8	40	AJAX FRACTION NO. 13
14	AJAX NO. 9	41	AJAX FRACTION NO. 14
15	AJAX NO. 10	42	AJAX FRACTION NO. 21
16	AJAX NO. 11	43	WILLS NO. 1
17	AJAX NO. 12	44	WILLS NO. 2
18	AJAX NO. 13	45	WILLS NO. 3
19	AJAX NO. 14	46	WILLS NO. 4
20	AJAX NO. 15	47	WILLS NO. 5
21	AJAX NO. 16	48	WILLS NO. 6
22	AJAX NO. 17	49	WILLS NO. 7
23	AJAX NO. 18	50	WILLS NO. 8
24	AJAX NO. 19	51	WILLS NO. 9
25	AJAX NO. 20	52	WILLS FRACTION NO. 6
26	AJAX NO. 21	53	WILLS FRACTION NO. 9
27	AJAX NO. 22	54	JEANNIE NO. 1

1 MAP SHOWING EXISTING DRILL HOLES, PROPOSED STAGE I AND STAGE II DMEA DRILLING, JEANNIE NO. 1, RED, AJAX AND WILLS GROUPS OF CLAIMS, PACIFIC URANIUM MINE COMPANY, EMERY COUNTY, UTAH

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA 3928
CONTRACT NO. IDM-E926

AMENDMENT NO. 1

It is agreed this 1st day of June, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Pacific Uranium Mines Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E926, Docket No. DMEA 3928, dated March 9, 1956, hereinafter called the "Contract," that the Contract is amended as follows:

In lieu of drilling thirty-four (34) holes, Nos. D-1 through D-34, under Stage I at the approximate locations shown on the map, "Figure 3", referred to in the Contract, certain holes will be omitted and other holes drilled at revised locations, as follows:

(1) Holes Nos. D-23, D-26, and D-29 will not be drilled.

(2) Holes Nos. D-14, D-17, and D-18 will not be drilled at the locations shown on "Figure 3" referred to above, but instead will be drilled at the revised locations indicated by the symbol "X" and as numbered D-14-B, D-17-B, and D-18-B on the map entitled, "Figure 1. Locations of Alternate Proposed Stage I Drill Sites and Stage I Holes Drilled to Date, Pacific Uranium Company, Emery County, Utah," which is attached hereto and made a part of 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 fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Executed in sextuplet the day and year first above written.

UNITED STATES OF AMERICA

By _____
W. M. Traver
Executive Officer, DMEA
Field Team, Region III

PACIFIC URANIUM MINES COMPANY

By _____

Title _____

(Seal)

COPY

4-9-56.

PACIFIC URANIUM MINES COMPANY

SUITE 210
292 SOUTH LA CIENEGA BLVD.
BEVERLY HILLS, CALIFORNIA
OLEANDER 5-7771

RECEIVED
APR 9 - 1956

April 6, 1956

Mr. Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division
U.S. Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D.C.

Dear Sir:

Reference is made to your letter of March 30, 1956 re:

Docket No. DMEA-3928 (Uranium)
Contract No. Idm-E926
Green River Claims
Emery County, Utah
Docket No. DMEA-4206 (Uranium)
John Brown, et al., groups
Mesa County, Colorado

The mailing address which you should use in communicating with this company is Suite 210, 292 South La Cienega Boulevard, Beverly Hills, California.

Thank you very much for calling this inconsistency to our attention.

Very sincerely yours,

PACIFIC URANIUM MINES COMPANY

By Irving Klubok
Irving Klubok

IK:sk

Supreme copy

700

Murphy
Johnson

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

1956

Pacific Uranium Mines Company
Suite 210, 292 South La Cienega Boulevard
Beverly Hills, California

Re: Docket No. DMEA-3928 (Uranium)
Contract No. I6m-2926
Green River Claims
Emery County, Utah
Docket No. DMEA-4206 (Uranium)
John Brown, et al., groups
Mesa County, Colorado

Gentlemen:

Referring to the captioned contract and your new application, docket No. DMEA-4206, we note that the addresses given are 122½ South Vermont Avenue, Los Angeles 4, California, and 192½ White, Grand Junction, Colorado, respectively. However, in DMEA-4206, in Mr. Hugh W. Evans' report, the Beverly Hills, California, address is given.

Will you please advise this office which of the above addresses should be used in mailing correspondence to your company.

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

FMMurphy/gla
3-29-56
cc to: Admr.'s Reading File
Docket DMEA-3928
" DMEA-4206
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700 - DMEA-3928 contract
Mr. Murphy
DMEA Field Team, Region III (2)

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

RECEIVED
MAR 30 1956

224 New Customhouse
Denver 2, Colorado

March 27, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3928 (Uranium), Contract Idm-E926, Pacific Uranium Mines Company, Green River Claims, Emery County, Utah.

Enclosed are the Government's, Division, and Docket copies of Exploration Project Contract Idm-E926, which was forwarded by your letter of March 9, 1956, for signature by the Operator.

Also enclosed are two copies of a letter from this office to the Operator forwarding the Operator's Copy of the contract, MF-104 forms, and instructions relative to reporting on work performed under the contract.

Referring to the fourth paragraph of your letter of March 9, 1956, we have ascertained from the County Clerk and Recorder of Emery County that "Wills" is the correct spelling of the claims.

Copies of the contract have been distributed to the Finance Office, Region III, and other offices concerned.

W. M. Traver

W. M. Traver

Enclosures

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

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

March 27, 1956

Pacific Uranium Mines Company
122½ South Vermont Avenue
Los Angeles 4, California

Re: Docket DMEA 3928 (Uranium)
Contract Idm-E926

Gentlemen:

Enclosed herewith is your copy of Exploration Project Contract Idm-E926, Docket DMEA 3928.

Also enclosed are six copies of form MF-104, "Operator's Monthly Report and Voucher," and six copies of form MF-104A, "Operator's Unit Cost and Progress Report." At the completion of the first calendar month of operation and monthly thereafter, you are required to submit five copies of the forms to Mr. John F. Shaw, U. S. Bureau of Mines, Room 137, Building 20, Denver Federal Center, Denver 2, Colorado. The sixth form is for your records.

Instructions relative to preparation of the forms are on the reverse side of each form. Please note that the monthly accounting report requires a narrative report, which should be accompanied by maps or sketches showing the work performed. The narrative report must be signed by the Operator. The monthly report will not be processed for payment unless accompanied by a narrative report. Additional copies of forms MF-104 and MF-104A will be forwarded to you each month on receipt of your report for the prior month.

The U. S. Geological Survey and the U. S. Bureau of Mines maintain a field office in the A.E.C. Compound at Grand Junction, Colorado. DMEA representatives of the two Services can be contacted as follows:

J. W. Hasler, U. S. Geological Survey,
Telephone Grand Junction 3000, Extension 282

M. M. Salsbury, U. S. Bureau of Mines,
Telephone Grand Junction 3000, Extension 274.

Both men can be reached by mail at Post Office Box 360, Grand Junction, Colorado.

For your information and in reply to many questions that have been asked, after forms MF-104 and MF-104A are received, an engineer will check progress and approve your accounts, after which they will be sent to the Regional Office, Region III, U. S. Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, for auditing and vouchering. If the report is in order, a check will be issued by the Treasury Department for the Government's portion of the costs. If you have any difficulty in completing these forms and the reports, please call on either the field representatives, Mr. Shaw, or this office for assistance.

In the matter of your claim for reimbursement of drilling costs, reimbursement to you under the terms of the contract will be on the basis of a hole or holes completed to the objective and in compliance with the specifications under the "General Provisions" section of Exhibit "A" attached to the contract. Therefore your monthly report should include only such holes that are completed to that extent and the required records made a part of your claim for reimbursement.

The contract is prepared on form MF-200 and under the provisions of Exhibit "A", which is a part of the contract, the allowable costs are a combination of actual incurred costs with an allowable maximum unit cost established for the work under Category (1) on all stages and fixed unit costs for performing the remaining items of work or service. Under the provisions of the contract the work under Category (1) is to be performed by subcontract. Your claim for reimbursement for such work must be supported each month by a copy of the billing from the independent contractor, or submit for our records a copy of the Subcontract Agreement.

In the event you desire to perform the work under Category (1) on company account, instead of subcontracting it as provided in the contract, it will be necessary that you obtain written approval from this office prior to commencing any of the work.

Your request to this office for work approval, changes in the contract, or any other communication pertaining to operations under the contract, must be in writing, of which please supply the original and five copies, each copy complete with maps or other pertinent data.

The locations of the holes to be drilled under Stage I are indicated on the map, Figure 5, attached to the contract. Should there be any material change in the location of any of the holes, approval of this office for the change must be obtained prior to the performance of the work. Otherwise, the work may not be acceptable for reimbursement to you under the terms of the contract.

Your attention is directed to the provision that the work under both Stages II and III is contingent on the results of the work completed under the prior stage and that performance of the work is subject to the prior written approval of the Government.

When the work under a stage is completed, you must request approval from this office for the work you propose to perform under the next stage. Your request for the work approval must be in sextuplet, each copy complete with a map showing the location of holes previously drilled and the location of the holes you propose to drill under the next stage. Your request should be complete with drill logs, results of radiometric probing, chemical analysis returns, and any other pertinent data which will be of value to the Government in appraising the work performed under the prior stage.

You should anticipate a suspension of operation between stages of work to enable the Government geologist and engineer to evaluate the results of the work performed and make their recommendations to this office relative to the additional work you propose.

To eliminate as much delay to operations as possible, if that is of serious consideration, you should expedite forwarding of the results of the work completed and your request for the Government's approval of the additional work you propose.

No oral statement of any person shall be construed to modify or change the terms of the contract. Field representatives of the Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington Office, DMEA, or by the DMEA Field Team, Region III.

It is a regulation that reimbursement for the cost of work accomplished prior to the date of the contract will not be allowed. It is a requirement and imperative that you notify this office in writing the date work actually commences under the contract, with a copy of your letter to Mr. Shaw.

Very truly yours,

W. M. TRAVER

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

Enclosures
JWT:prl
cc: Chairman, Oper. Comm. (2)
Finance Office, Region III
Amendment file
Harshman
Shaw (2)
Hasler
Townsend
Carver file - Shaw

3/16/56 gla

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

RECEIVED
MAR 16 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

March 14, 1956

New Address

Pacific Uranium Mines Company
~~122½ South Vermont Avenue~~
~~Los Angeles~~ 4, California

292 - S. La Cienega
Beverly Hills, Calif

Re: Docket DMEA 3928 (Uranium)
Pacific Uranium Mines Company,
Green River Claims, Emery Co., Utah,
Proposed Exploration Project
Contract Idm-E926

Gentlemen:

Enclosed are the Government's, Division, Docket, Finance Office, and Field Team copies of proposed Exploration Project Contract Idm-E926, which has been prepared pursuant to your application for Government assistance in exploration work under the Defense Minerals Exploration Administration program.

If the contract is satisfactory to your Company, all copies are to be signed by the President of the Company, his signature attested by the Secretary of the Company, the corporate seal affixed, and all copies of the contract promptly returned to this office.

Near the top of the Consent to Lien form, a copy of which is attached to each copy of the contract, you will notice where the words, "and the Red No. 6" have been crossed out and initialed "C.O.M." The signer of the contract must also initial the deletion on all copies of the Consent to Lien form.

Upon receipt in this office of the properly executed copies of the contract, the "Operator's Copy" will be forwarded to you, together with forms and instructions relative to reporting on work performed under the contract.

When the executed copies of the contract are returned to this office, please advise the date on or before which work under the contract will be commenced, for our insertion under Article 3 of the contract.

JWT:prl
cc: Chairman, Oper. Comm. (2)
Harshman
Shaw (2)
Hasler
Townsend

Enclosures
Corres. file
Chron.

Very truly yours,

W. M. TRAVER

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

Surname copy 700

Murphy
Ellis
Selfridge
Johnson
Wittenhorf

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

MAR 13 1956

DEPARTMENT OF THE INTERIOR

DMEA

14X14.01(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to the Office of the Secy.)

(Uranium)

T E L E T Y P E

W. M. TRAVER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REURTT DOCKET DMEA-3928, PACIFIC URANIUM MINES CO., PROPOSED CONTRACT XDM-2926, RELEASE CONTRACT FOR SIGNATURE OF PRESIDENT OR SECRETARY OF COMPANY.

George C. Selfridge

GEORGE C. SELFRIDGE (SHG)
CHAIRMAN, OPERATING COMMITTEE

FTMurphy/gla
3-13-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Murphy
Confirmation to Region III

9

Chairman, Opr. Comm., D.M.E.A.

RECEIVED
MAR 13 1956

DN 235 BUR MINES J-12-56 4-31

CHAIRMAN, OPERATING COMMITTEE, DMEA

RE DOCKET DMEA 3928, PACIFIC URANIUM MINES CO., PROPOSED CONTRACT IDM-E926. IN VIEW OF MATTER DISCUSSED IN LETTER FROM ADMINISTRATOR TO THE APPLICANT, DATED 1-16-56, ARE TXX WE TO RELEASE CONTRACT IDM-E926 AS PROVIDED IN YOUR LETTER OF MARCH 9,1956/Q/ PLEASE TELE-TYPE ADVICE.

W M TRAVER

Denver, Colo.

Surname copy

700

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

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

MAR 9 1956

Re: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River claims
Emery County, Utah

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed long-form contract between the Government and Pacific Uranium Mines Company. Also enclosed are two extra copies of Exhibit "A," with maps Figure 2 and Figure 3.

Attached to each contract form, MF-200, are Annex I, Exhibit "A," consisting of five pages, and two maps, Figure 2 and Figure 3, also Owners' Consent to Lien.

In a letter, dated December 22, 1955, to E. N. Harelman, Acting Executive Officer, DMEA, from Pacific Uranium Mines Company, the Applicant states: "The correct spelling of Wills claims is Wills." The Leases, Assignment of Leases, and the Owners' Consent to Lien pertaining to the subject application also use the spelling of the claims as "Wills." However, in a memorandum, dated December 19, 1955, to this office from the Field Team it is noted that the examining engineer reports that the claims are shown in the County Recorder's Office as "Willis."

If the spelling "Willis" is correct, then an amendment to Annex I will be required. However, the proposed contract can be executed as now written and on advice from the Field Team we will prepare such an amendment if required.

In the Consent to Lien forms attached to the proposed contract, the words "and Red Claim No. 6" should be crossed out, and the deletion initialed by the Applicant.

For your information, we are enclosing two copies of a letter from Pacific Uranium Mines to Ernest Wm. Ellis, dated February 16, 1956, which covers recording data of the claims.

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.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

APPROVED:

/s/ Robert W. Geehan

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FMMurphy/gla
(3-5-56) 3-6-56

cc to: Admr.'s Reading File
Operating Committee
Docket

Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Murphy

Former Employee Of AEC Is Charged With Using Data

Grand Junction, Colo.—John P. Kellogg of Grand Junction, a former atomic energy commission geologist, pleaded innocent in Denver federal court to a charge of obtaining uranium claims in Utah while knowing the AEC planned to explore the properties.

Kellogg, free on $1,500 bond since his arrest Aug. 28 in Grand Junction, faces a maximum penalty of two years in prison and $5,000 fine if convicted.

Robert D. Inman, assistant U. S. attorney for Colorado, said the action was brought under the atomic energy act, charging Kellogg, as individual connected with the development of the atomic bomb project, benefited from acquiring the uranium locations in the White Canyon area of Utah.

Inman said the case is the first of its kind in Colorado's federal court.

Mayday Uranium is reported negotiating for sale of some Colo. properties for $400,000 and shipping 200 tons weekly from Pioche properties.

Mining Record
December 22, 1955

Stephen B. Scouzall.
Sec. same address

Date of trial - (He has been indicted) —

Sept. 9 - 1955 signed waiver of indictment

Plead not guilty Sept. 9

Oct. 17 Atty. sick

so proceedings postponed case be tried on

Information rather than an indictment.

Case not up yet.

R. Uranium Mines Co

5693

Sect. State for Nevada

Formerly Pac. Butte Mines Co.

Prior to July 27-1954

Tonopah, Nov. & Globe Ariz,

Mayor Proctor of

Globe Resident Agent

Cap. Stock $200,000

Incorp. 2000 001 shares

J. Mc Guinn Director

M. Duffy "

M. Barkley "

P.O. 844 Reno Nev.

M. B. Leff Bros.

165 N. San Vicente

Beverly Hills, Cal.

Cap's notes from Tel Cons with R

Docket Copy

MF-200
(Revised June 1954)

Docket No. DMEA 3928

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] Pacific Uranium Mines Company, a Corporation, whose mailing address is 122½ South Vermont Avenue, Los Angeles 4, California, 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 maps Figure 2 and Figure 3.

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 Utah, County of Emery, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] sub-lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] sub-lease, [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: Owners' Consent to Lien
Sub-lessor's Subordination Agreement

(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 December 1, 1956 (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 $ 73,840.00
The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $ 55,380.00 : *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

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
12/27/55
FMMurphy/ism
DMEA-3928

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA-3928

ANNEX I

The land referred to in Article 2 of the contract consists of 40 full lode mining claims and 14 fractions which are recorded in the office of the County Recorder, Emery County, Utah, as follows:

Claims	Book No.	Page No.
Ajax Nos. 1-22 incl.)		(37-66 incl.
Willis Nos. 1-9 incl.)	J-70	(70-76 incl.
Jeannie No. 1)		(
Ajax Nos. 23-25 incl.	J-54	111-113 incl.
Ajax Fractions Nos. 1-8 incl.	J-70	33-36 incl.
Ajax Fractions Nos. 9, 13, 14, 21	J-70	67-69 incl.
Willis Fractions Nos. 6, 9	J-71	240-246 incl.
Red Nos. 1-5 incl.	J-29	180-185 incl.

The above claims are situated in Secs. 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., S.L.B.M., and are shown on the map entitled "Figure 3 - Map Showing Existing Drill Holes, Proposed Stage I And Stage II DMEA Drilling, Jeannie No. 1, Red, Ajax, And Willis Groups Of Claims, Pacific Uranium Mines Company, Emery County, Utah," attached hereto and made a part hereof.

EXPLORATION PROJECT CONTRACT
PACIFIC URANIUM MINES COMPANY
DOCKET NO. DMEA-3928

EXHIBIT "A"

Description of the Work

The object of this project is to explore the upper part of the Salt Wash member of the Morrison formation by means of core and non-core drilling.

It is estimated that holes ranging from 200 to 450-feet in depth will be required to penetrate through the inferred uranium-bearing sandstone.

The work shall be divided into three stages. The Operator shall complete all the work in Stage I and so much of each succeeding stage as is approved in advance in writing by the Government.

STAGE I

Stage I shall consist of drilling thirty four (34) holes, totaling an estimated 8,082 feet of non-core and 2,720 feet of core drilling. The approximate locations of the drill holes are shown on map Figure 3, referred to in Annex I of this contract, and are identified by an X with the letter D preceeding the numerical number of the hole.

Holes D-1 through D-29 shall not be closer than approximately 400 feet and drill holes D-30 through D-34 shall not be closer than approximately 600 feet to any other hole drilled under Stage I of this contract. Also, not in excess of 30 samples - etc.

If the drill footage estimated for Stage I drilling is not sufficient to complete the 34 holes, then with previous written Government approval a part of the footage estimated for Stage II may be used.

STAGE II

Stage II shall consist of drilling not in excess of fifty (50) holes at locations approximately 200 feet in a N. 75° W., and approximately 200 feet in a S. 75° E., direction from each of those holes drilled under Stage I which penetrated ore-bearing rock or favorable sandstone with significant mineralization. The approximate locations of all possible holes, that might meet these criteria, are indicated by an X on the map entitled Figure 3, previously mentioned.

Not in excess of 13,000 feet of non-core and 2,000 feet of core drilling and not in excess of 45 samples - etc. shall be done under this Stage II of the contract. Any excess drilling footage remaining in Stage II, after completing the holes approved by the Government, shall not be used under Stage III. However, any excess drilling footage remaining in Stage I may be used to complete the number of holes authorized for Stage II, subject to prior written Government approval.

STAGE III

Stage III shall consist of drilling not in excess of fourty (40) offset holes at locations not less than 100 feet from those holes drilled under Stage I and II in which ore or significant mineralization was found.

Not in excess of 10,800 feet of non-core and 1,200 feet of core drilling and not in excess of 39 samples - etc shall be done under this Stage III of the contract.

GENERAL PROVISIONS

A competent supervisor shall be employed full time in connection with the performance of the project work.

All holes shall be drilled non-core to about 5 feet above the inferred top of the favorable uranium-bearing sandstone, and the rest of the hole then shall be core drilled to about 5 feet below the bottom of the sandstone.

The Government shall not contribute to the cost of any hole that (1) does not penetrate through the favorable sandstone; (2) bottoms less than Ax core size; (3) cannot be probed with radiometric logging equipment; (4) is drilled closer than 100 feet to the outer boundaries of the subject property.

Sections of drill core showing uranium mineralization shall be split. One-half of the split core shall be analyzed for its U_3O_8 and V_2O_5 content. The remainder shall be stored, for Government use, with the rest of the core, in boxes properly labeled as to drill hole number. Markers shall be placed in the sections of core to indicate the depth represented.

All holes shall be logged and probed for radioactivity. Records of such logging and probing, together with assay certificates, shall be submitted with the Operator's monthly progress report.

The supervision, the extent and method of sampling and logging drill holes, the manner of storing drill core, the location, direction, and depth of drill holes are all subject to Government approval.

ESTIMATED COSTS

Stage I

Independent Contracts[1] Category (1)	
8,082 feet non-core drilling @ $1.50/ft.	$12,123.00
2,720 feet core drilling @ $3.50/ft.	9,520.00
Fixed Unit Costs	
Incidental allowance[2] for each foot of drilling completed 10,802 feet @ $0.125/ft.	1,350.25
Chemical analyses for U_3O_8 and V_2O_5, 30 samples @ $5.00 each	150.00
Total Estimated Costs Stage I	$23,143.25

Stage II

Independent Contracts[1] Category (1)

13,000 feet non-core drilling @ $1.50/ft.	$19,500.00	
2,000 feet core drilling @ $3.50/ft.	7,000.00	
Fixed Unit Costs		
Incidental allowance[2] for each foot of drilling completed 15,000 feet @ $0.125/ft.	1,875.00	
Chemical analyses for U_3O_8 and V_2O_5, 45 samples @ $5.00 each	225.00	
Total Estimated Costs Stage II		$28,600.00

Stage III

Independent Contracts[1] Category (1)

10,800 feet non-core drilling @ $1.50/ft.	$16,200.00	
1,200 feet core drilling @ $3.50/ft.	4,200.00	
Fixed Unit Costs		
Incidental allowance[2] for each foot of drilling completed 12,000 feet @ $0.125/ft.	1,500.00	
Chemical analyses for U_3O_8 and V_2O_5, 39 samples @ $5.00 each	195.00	
Total Estimated Costs Stage III		$22,095.00

S U M M A R Y

Total Estimated Cost Stage I - $23,143.25
Total Estimated Cost Stage II - $28,600.00
Total Estimated Cost Stage III - $22,095.00

Total Estimated Cost of Project (rounded) - $73,840.00

Government Participation @ 75% - $55,380.00

1/ Categories (2) through (7) do not apply to this contract.
2/ Includes all costs whatsoever (chemical analyses excepted) that are not included under "Independent Contracts" and includes such items as supervision, radiometric logging of holes, access roads to drill sites, etc., which would otherwise be allowable under Categories (2) through (7) of the contract form.

Pacific Uranium Mines Company
DMEA-3928

Item	Months or Units	Cost/unit	Total
Supervision	7 mos.	$500.00	$3500
chemical analyses	104 holes	$5.00/samp.	500
Logging holes	124 holes @ 1.5 hrs./hole	@ $10.00/hr	1860
Access roads	10 days	$100.00/day	1000
Supplies?			
			6860

$$\frac{\$6860}{37,802 \text{ (total footage)}} = \$0.18+$$

37,802 ft. x 1.5¢ = $567.00 say $570

$$\frac{\$570}{\$5} = 114 \text{ holes}$$

14¢ - 1.5¢ = 12.5¢ for supervision, logging holes, access roads etc.

Stage	Footage @ 12.5¢		Footage @ 1.5¢ (Chem. Anal.)		Total
I	10,802 @ 12.5¢	$1,350.25	@ 1.5¢	162.03	1,512.28
II	15,000 @ 12.5¢	1875.00	@ 1.5¢	225.00	2,100.00
III	12,000 @ 12.5¢	1500.00	@ 1.5¢	180.00	1680.00
		$4,725.25		$567.03	$5,292.28

(*) say $570 - $570/$5.00 = 114 holes

stage I - 30 holes x $5 = $150; stage II - 45 holes $225; stage III - 39 $195

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

Indritz 3/2/56
Dwyer
MAR 5 1956

Memorandum

To: The Administrator, DMEA
Attention: Chief, Rare and Miscellaneous Metals

From: Associate Solicitor, Division of Mineral Resources

Subject: Pacific Uranium Mines Company
Docket No. DMEA-3928 (Uranium)
Emery County, Utah

Attached is the draft of contract with Pacific Uranium Mines Company. The deficiencies noted in our memorandum of February 6 have been corrected, and the contract is now ready for signature.

Robert P. Dwyer

Robert P. Dwyer

Attachments

P. Indritz/wog
March 2, 1956
Copy to: DMEA Docket
Solicitor's Docket (2)
E.W.Ellis (2)
R.P.Dwyer
P.Indritz
Chron.

2-29-56 lgm
700

gg, *Manager*
Redmond, *Chief Geologist*
ce in Los Angeles

Mining
Exploration
Geology
Engineering

RECEIVED
FEB 28 1956

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

February 27, 1956

air mail
special deliv.
registered
att'n: F.M.Murphy

Mr. Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division
DEFENSE MINERALS EXPLORATION ADMINISTRATION
U. S. Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3928 (Uranium)
Green River Claims
Emery County, Utah

Dear Mr. Ellis:

Enclosed are six copies of Consent To Lien forms duly signed by the property owners and their wives, or by their attorney in fact. Reference is made to our letter of February 16, in which we furnished data re/ all recordings under Circular 7 and Public Law 585. Together with these forms, this should complete the information requested in your letter of Feb. 8.

Yours very truly,

John P. Kellogg

John P. Kellogg

~~ogg, Manager~~
L. Redmond, *Chief Geologist*
Office in Los Angeles

FEB 20 1956

Mining
Exploration
Geology
Engineering

PACIFIC URANIUM MINES

1924 White Avenue
GRAND JUNCTION, COLORADO
Phone 487 or 488

February 16, 1956

Mr. Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division
DEFENSE MINERALS EXPLORATION ADMINISTRATION
U. S. Department of the Interior
Washington 25, D.C.

Re: Docket No. DMEA-3928 (Uranium)
Green River Claims
Emery County, Utah

Dear Mr. Ellis:

Your letter of Feb. 8, 1956 to Pacific Uranium Mines in Los Angeles has been referred to this office for action. The deficiencies you have noted in our application are answered as follows:

(1) The six new copies of the Consent to Lien form which you enclosed have been mailed to the owners for theirs and their wives' signatures.

(2-c) Regarding those claims (Ajax Nos 23, 24, & 25; Ajax Fractions Nos. 1-8, incl.; Ajax Fraction Nos. 9, 13, 14, & 21; and Wills Fraction Nos. 6 & 9)mentioned in application, but not in lease, the reason is that they were located subsequent to the original lease. This lease was executed between the owners and Haile Mines Inc. on Aug. 18, 1954. Haile Mines Inc. then assigned their lease to Halper Construction Corporation on March 26, 1955. The above-noted claims were located between these two dates. We had assumed that the first sentence, article 10, page 5 of the original lease would automatically include subsequently located fractional claims as part of the lease. This sentence reads: "If there are any claims or fractional claims contiguous to or lying in whole or in part within the outer boundaries of the claims hereby leased the same shall be located in the names of the lessors and shall become the property of the lessors, but the lessee shall have the right to mine and operate the same as a part of this lease." An instrument dated Aug. 9, titled "Ratification and Further Agreement" from Ray Wareham and Ervin Olsen to Haile Mines, Inc., agrees to change the words "in the near vicinity" to "lying in whole or in part within the outer boundaries". This instrument was recorded in Book J-48, pages 264-274.

If this should fail to validate our right of possession to these fraction claims, please advise, so that we can have an additional instrument drawn and signed for their inclusion.

(2-a,b,d) Yes. The Amended locations were validated by the filing and recording withdrawals of the lease application under AEC Circular 7. Please refer to the attached tabulation of all claims, listing dates of original location, lease application, release (or withdrawal) of lease application, and new (amended) locations, with recorded books and pages.

Those claims, mentioned in paragraph (2-c) page 1, this letter, that were located subsequent to the original lease, were also located subsequent to Public Law 585. We have been advised legally that these claims did not require filing under Circular 7, and that their original location is sufficient.

We hope that this information, and your future receipt of the correctly signed Consent to Lien forms will suffice for continued processing of our application.

Yours very truly,

John P. Kellogg

John P. Kellogg

encl. listing of Green River claims with
all pertinent data subject to Circular 7,
dates, and recording information

The following information was taken from "a true and correct abstract" compiled by the CARBON EMERY ABSTRACT & REALTY COMPANY, 72 West Main, Price, Utah, certified and sealed on the 19th day of May, 1955. This information supersedes all former listing

CLAIMS: AJAX 1-22, incl.

Original Location:

Dates:	Ajax 1-16, 19-22, incl.	5/7/1954
	Ajax 17 & 18	5/17/1954

Recorded: Book J-21
Pages 577-598, incl.

Locators: Ray Wareham and Lyman P. Brown

Lease Application:

Dates:	Ajax 1-16, 18-22, incl.	5/7/1954
	Ajax 17	5/17/1954

Recorded: Book J-23
Pages 240-261, incl.

Applicants: Ray Wareham and Lyman P. Brown

Withdrawal of Lease Application:

Dates:	Letter to AEC, Gnd. Jct.	12/61/954
	Notice of Filing	12/8/1954

Recorded: Book J-29
Pages 245-246

Signers: Ray Wareham, Lyman P. Brown, and Ernest C. Wareham

Amended Locations:

Dates:	Ajax 1-22, incl.	12/10/1954

Recorded: Book J-70
Pages 37-41, 47-56, 60-66, incl.

Locators: Ray Wareham and Lyman P. Brown

CLAIMS: WILLS 1-9, incl.

Original Location:

Dates: Wills 1-9, incl. 5/7/1954

Recorded: Book J-21
Pages 567-575, incl.

Locators: Ray Wareham and Lyman P. Brown

Lease Application:

Dates: Wills 1-9, incl. 5/7/1954

Recorded: Book J-23
Pages 230-238, incl.

Applicants: Ray Wareham and Lyman P. Brown

Withdrawal of Lease Application:

Dates: Letter to AEC, Gnd. Jct. 12/6/1954
Notice of Filing 12/8/1954

Recorded: Book J-29
Pages 245-246

Signers: Ray Wareham, Lyman P. Brown, and Ernest C. Wareham

Amended Locations:

Dates: Wills 1-9, incl. 12/10/1954

Recorded: Book J-70
Pages 57 & 58, 70-76, incl.

Locators: Ray Wareham and Lyman P. Brown

CLAIMS: RED 1-6, incl.

Original Locations:
(Red 1-5, incl. first located July 10 & 14 by Ray Wareham and Ervin Olsen, and recorded in Book J-28, pages 127-131, incl. Lease applied for under Circular 7 on same dates, and recorded in Book J-28, pages 132-136, incl. Then the claims were amended as follows, with addition of Red Claim No. 6:)

Dates: Red 1-6, incl. 7/24/1954

Recorded: Book J-29
Pages 174-179, incl.

Locators: Ray Wareham and Ervin Olsen

Lease Application:

Dates: Red 1-6, incl. 7/24/1954

Recorded: Book J-29
Pages 180-185, incl.

Applicants: Ray Wareham and Ervin Olsen

Withdrawal of Lease Application:

Dates: Letter to AEC, Gnd. Jct. 12/6/1954
Notice of Filing 12/8/1954

Recorded: Book J-29
Pages 247 & 248

Signers: Ray Wareham and Ervin Olsen

Amended Locations:

Dates: Red 1-5, incl. 12/10/1954

Recorded: Book J-70
Pages 42-46, incl.

Locators: Ray Wareham and Ervin Olsen

(Note: Red Claim No. 6 was replaced by Ajax Fraction No. 21)

CLAIM: JEANNIE No. 1

Original Location:
Date: 5/7/1954

Recorded: Book J-21
Page 576

Locator: Ernest C. Wareham

Lease Application:
Date: 5/7/1954

Recorded: Book J-23
Page 239

Applicants: Ernest C. Wareham and Ray Wareham

Withdrawal of Lease Application:
Date: Letter to AEC, Gnd. Jct. 12/6/1954
Notice of Filing 12/8/1954

Recorded: Book J-29
Pages 245-246

Signers: Ray Wareham, Lyman P. Brown, and Ernest C. Wareham

Amended Location:
Date: 12/10/1954

Recorded: Book J-70
Page 59

Locators: Ray Wareham and Lyman P. Brown

CLAIMS LOCATED SUBSEQUENT TO P. L. 585

(located by Ray Wareham and Lyman P. Brown)

Claim	Location Date	Recorded Book and Page	
Ajax Fraction No. 1	12/11/1954	J-71	240
Ajax Fraction Nos. 2-5, incl.	12/10/1954	J-70	33-36, incl.
Ajax Fractions Nos. 6,7,8	12/10/1954	J-70	67,68,69
Ajax Fraction No. 9	12/11/1954	J-71	241
Ajax Fraction No. 13	"	"	242
Ajax Fraction No. 14	"	"	243
Ajax Fraction No. 21	"	"	244
Wills Fraction No. 6	"	"	245
Wills Fraction No. 9	"	"	246
Ajax No. 23	10/4/1954	J-54	112
Ajax No. 24	"	"	113
Ajax No. 25	"	"	114

Surname copy

700

Murphy
Ellis

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

FEB - 9 1956

AIR MAIL

Pacific Uranium Mines Company
Suite 210
292 South La Cienega Boulevard
Beverly Hills, California

Re: Docket No. DMEA-3928 (Uranium)
Green River Claims
Emery County, Utah

Gentlemen:

In mailing our letter, dated February 8, 1956, the enclosed copies of the previously signed Consent to Lien forms were not attached. Please excuse this oversight.

Sincerely yours,

SIGNED

Lynde Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

Enclosures

FMMurphy/gla
2-9-56
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Murphy
DMEA Field Team, Region III (2)

R.G.S.

Surname copy 700

Murphey
Ellis
Mattendorf

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

FEB - 8 1956

Pacific Uranium Mines Company
Suite 210
292 South La Cienega Boulevard
Beverly Hills, California

Re: Docket No. DMEA-3928 (Uranium)
Green River Claims
Emery County, Utah

Gentlemen:

In processing your above-docketed application the following deficiencies were noted:

(1) The Consent to Lien submitted bears the signatures of Ray Wareham, Earnest C. Wareham, Ervin Olsen, and Lyman P. Brown. Since the leases, relating to the captioned claims, show that their spouses also have interests in the land, they, too, should sign the Consent to Lien.

We are returning the previously signed Consent to Lien forms and enclosing six copies of a newly typed form which will be acceptable to this Administration after being signed in the manner mentioned above.

(2) Data in the application and leases indicate the recordings of the claims are as follows:

Claims	Amended recordings under P. L. 585 in application			Recording data in leases - *Mentioned in application but not in leases.		
	Book	Page	Date	Book	Page	Date
Ajax Nos. 1-22 incl.)	J-70	37 to 66	7/26/54	J-21	567 to 598	5/24/54
Wills Nos. 1-9 incl.)	"	and	"	"	"	"
Jeannie No. 1)	"	70 to 76	"	"	"	" 1/
Ajax Nos. 23, 24, 25*				J-54	111 to 113	12/10/54
Ajax Fraction Nos. 1-8 incl.*				J-70	33 to 36	"
Ajax Fraction Nos. 9, 13, 14, 21*				J-70	67 to 69	"
Wills Fractions Nos. 6, 9*				J-71	240 to 246	"
Red Nos. 1-5 incl.				J-29	180 to 185	7/26/54

1/ Note: Application gives Book No. as J-1

With regard to the above list of claims, will you kindly forward the following additional information:

(a) Were the amended locations validated by the filing and recording withdrawals of the lease applications under AEC Circular 7?

(b) Were any of the other claims located on lands subject to the Mineral Leasing Act and AEC Circular 7? If so, submit all data indicating that the claims are now valid.

(c) The leases do not mention Ajax claims Nos. 23, 24, 25, or the Ajax and Wills Fractions. Kindly advise us regarding the status of these claims in relation to your right of possession.

(d) Whether or not the above listings of the claims with their recorded book and page numbers are correct.

On receipt of the Owners' Consent to Lien forms, duly executed, and clarification of the validity and correctness of the claim recording data, we shall promptly continue to process the subject application.

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

Enclosures

FMMurphy/gla
2-8-56
cc to: Admr.'s Reading File
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Murphy
DMEA Field Team, Region III (2)

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

Judrity 2/3/56
Dunger

FEB 6 1956

Memorandum

To: The Administrator, DMEA
Attention: Chief, Rare & Miscellaneous Metals Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-3928, Pacific Uranium Mines Co., (Uranium)

We have prepared the attached draft of contract pursuant to your request. However, in view of the deficiencies herein noted involving the Consent to Lien and Annex I of the contract, it is recommended that the contract not be signed until such deficiencies are corrected.

(1) The Consent to Lien bears the signatures of Ray Wareham, Earnest G. Wareham, Ervin Olson and Lyman F. Brown. Since the file shows that their spouses also have interests in the land, they too should sign the Consent to Lien. Also, the references therein to "Fraction No. 1" and to "Seven Construction" should read "Ajax Fraction No. 1" and "Kulper Construction Corp.," respectively. In the event it is determined to obtain a new Consent to Lien, a proposed form is attached.

(2) The map attached to the contract refers to the "Willis" claims. Since the correct spelling apparently is "Wills," the map should be corrected. ? see memo 12/9/55

(3) There appears to be a discrepancy in the descriptions of the mining claims as stated in the application, the lease and assignments, and the Field Team's report as follows:

	Application-		Lease and Assignments		Field Team Report	
	Location Date	Book	Location Date	Book	Location Date	Book
Wills 1-9	6/7/54	J-1	5/7/54	J-21	6/7/54	J-23
Jeannie 1	6/7/54	J-1	5/7/54	J-21	6/7/54	J-23
Ajax 1-22	6/7/54	J-1	5/7/54	J-21	6/7/54	J-23
Red 1-5	6/26/54	J-29	7/26/54	J-29	6/26/54	J-29

In addition, the application states (a) that notices of lease application under AEC Circular No. 7 were filed for the above claims, and (b) that new locations were made December 10, 1954, pursuant to the Multiple Mineral Development Act of August 13, 1954 (68 Stat. 708, 709; 30 U.S.C., Supp. II, sec. 521; Public Law 585, 83rd Congress) as to the Willa, Jeannie and Ajax groups of claims listed above, but apparently not as to the Red 1-5 claims. If the Red claims located in June (or July) 1954 were on lands subject to the mineral leasing act and AEC Circular 7, those locations were not valid when made and therefore the Red 1-5 claims would not now be valid.

Moreover, sec. 3(b) of the Multiple Mineral Development Act (30 U.S.C., Supp. II, sec. 521(b)) provides that rights to mining claims located under that section "shall terminate at the expiration of thirty days after the filing for record of the notice or certificate of location of such mining claim unless, within said thirty-day period, the owner of the uranium lease application or uranium lease upon which the location of such mining claims was predicated shall have filed with the Atomic Energy Commission a withdrawal of said application or a release of said lease and shall have recorded a notice of the filing of such withdrawal or release in the county office wherein such notice or certificate of location shall be of record." There is nothing in the file to indicate that the new December 1954 locations were validated by the filing and recording of withdrawals of the lease applications, and therefore it is possible that the locations of the Willa, Jeannie, and Ajax groups of claims listed above might be void.

As a result of these deficiencies in the file it is suggested that the applicant be requested to furnish certified copies of all location notices, original and amended, lease applications, and withdrawals of lease applications of all claims described in the proposed contract. In addition the Field Team should advise whether the claims, other than the Willa 1-9, Jeannie 1, and Ajax 1-22 were located on lands subject to the Mineral Leasing Act and AEC Circular 7. We have withheld surnaming the contract until these copies are available.

PIndritz/emd
Copy to: DMEA Docket
Sol Docket
E.W. Ellis (2)
Attachments: R.P.Dwyer
P. Indritz
chron.

Robert P. Dwyer

Proposed contract sent to Legal Div. 1/25/56

Jan. 25, 1956 - 2:15 PM.

Pacific Uranium Mines Co.
Docket No. DMEA-3928
Mr. Atwood telephoned from California, said J.P. Kellogg was not Vice-President, not Gen. Mgr., not stockholder in Co.
If contract approved send to La Cienega address. Mr. Atwood will be in Washington Jan. 31.

Murphy

Surname copy

700

Murphy
Ellis

Wistendorf
H Johnson

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

January 24, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: F. M. Murphy, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River claims
Emery County, Utah

Will you kindly prepare a long-form contract between the Government and the above-mentioned company in accordance with the attached draft. Copies of maps, Figures 2 and 3 are attached, as well as leases and Owner's Consent to Lien.

Please refer to the Administrator's letter, dated January 16, 1945, and the Applicant's letter, dated January 20, in response, which are in the docket file.

I have discussed the questions and answers in these letters with Joe Hosted, AEC contact man in regard to DMEA uranium-thorium applications. He said that as far as the AEC was concerned, he believed they would not object to DMEA granting a contract to the Pacific Uranium Mines Company on claims not involved under the AEC charge, even though John P. Kellogg is a member of the company.

This request to your office is being routed through the Administrator's office for surnaming, because of the questions regarding J. P. Kellogg.

/s/ F. M. Murphy

F. M. Murphy

FMMurphy/gla
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Murphy

1-24-56 [illegible]

PACIFIC URANIUM MINES COMPANY

SUITE 210
292 SOUTH LA CIENEGA BLVD.
BEVERLY HILLS, CALIFORNIA
OLEANDER 5-7771

January 20, 1956

RECEIVED
JAN 24 1956

Mr. C. O. Mittendorf
Administrator
United States Department
of the Interior
Defense Minerals Exploration
Administration
Washington 25, D.C.

Dear Sir:

Reference is made to your letter dated January 16, 1956 in connection with Docket No. DMEA-3928 (Uranium), Green River Claims, Emery County, Utah.

In that letter, you asked if Mr. John P. Kellogg, the individual referred to in the December 22, 1955 issue of the Mining Record published in Denver is the individual who signed the above-dockted application. The answer is yes.

Your second question was: Are the subject Green River Claims involved in the Atomic Energy Act charge? The answer is no. These Green River Claims, as stated in the application and the records in the possession of your Agency, were claims obtained from the Haile Mines Company.

I hope that this letter will clarify all the points raised in your request.

AEC

Very sincerely yours,

PACIFIC URANIUM MINES COMPANY

By Irving Klubok
Irving Klubok

IK:sk

700

FILE COPY
Surname:
Murphy
Ulo
Robinson

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

JAN 1 6 1956

Pacific Uranium Mines Company
Suite 210
292 South La Cienega Boulevard
Beverly Hills, California

Re: Docket No. DMEA-3923 (Uranium)
Green River Claims
Emery County, Utah

Gentlemen:

In the December 22, 1955, issue of the Mining Record, published in Denver, we noted the following item:

"FORMER EMPLOYEE OF AEC IS CHARGED WITH USING DATA"

"Grand Junction, Colo.—John P. Kellogg of Grand Junction, a former atomic energy commission geologist, pleaded innocent in Denver federal court to a charge of obtaining uranium claims in Utah while knowing the AEC planned to explore the properties.

"Kellogg, free on $1,500 bond since his arrest Aug. 28 in Grand Junction, faces a maximum penalty of two years in prison and $5,000 fine if convicted.

"Robert D. Inman, assistant U. S. attorney for Colorado, said the action was brought under the atomic energy act, charging Kellogg, as individual connected with the development of the atomic bomb project, benefited from acquiring the uranium locations in the White Canyon area of Utah.

"Inman said the case is the first of its kind in Colorado's federal court."

Will you kindly inform this office whether or not this is the same John P. Kellogg, who signed the above-docketed application. If so, are the subject Green River claims involved in the Atomic Energy Act charge?

Sincerely yours,

C. O. Mittenden

Administrator

Mr. Murphy
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3641
THKillsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

FMMurphy/izm 1-13-56
cc to: Docket
Code 700
Admr.'s Reading File

A.C.K.

January 13, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

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

Subject: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River claims
Emery County, Utah

Kindly prepare a long-form contract for the above-entitled exploration project in accordance with the attached draft. Copies of Figure 2 and 3 maps are attached, as well as leases and Owner's Consent to Lien.

/s/ F. M. Murphy

F. M. Murphy

12-30-55 [illegible]

IN REPLY REFER TO:

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

December 29, 1955

RECEIVED
DEC 30 1955

Re: DMEA 3928
Pacific Uranium Mines Co.
Green River claims
Emery County, Utah
$73,850 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report.

After field examination, the examining team concludes that geologic conditions on the property are favorable for the presence of uranium ore bodies; and it is recommended that DMEA participation in an exploration project be approved. The examining team recommends a core and plug-bit drilling project that is to be completed in three stages. Total drilling footage would be 37,802 feet at a total cost of $73,850.

Actually the proposed project would be searching for extensions of ore that has already been discovered in the northwest corner of the property and on the adjoining properties of Four Corners Uranium Corporation and Uranium Prospectors Company, Ltd.

I concur with the Field Team's recommendation that a DMEA contract be approved to provide for the proposed work.

The field report points out that the applicant has not submitted appropriate legal instruments to demonstrate adequate title in the land for DMEA purposes.

W P Williams

W. P. Williams

12-29-55 dgm

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

RECEIVED
DEC 29 1955

December 28, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 3928, Pacific Uranium Mines Company, Green River claims, Emery County, Utah

I have reviewed the report of examination of the Pacific Uranium Mines Company, DMEA Docket 3928, dated December 14 and received in this office December 22. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

An exploration program slightly modified from that proposed by the applicant is recommended by the field examiners. The recommended program consists of a maximum of 124 holes divided into three stages at an estimated total cost of $73,850.32, Government participation at $55,387.74.

We concur in the recommendations of the field team.

In accordance with the routing slip attached thereto, the report is being forwarded to the Chief, Division of Minerals.

John E Crawford
John E. Crawford

1-3-56 Lyn

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

RECEIVED JAN 3 1956

224 New Customhouse
Denver 2, Colorado

December 28, 19555

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3928 (Uranium) Pacific Uranium Mining Co., Green River claims, Emery County, Utah

Enclosed are the following:

1. Two copies of a letter from the applicant.

2. Copy of the lease from claim owners to Haile Mines, Inc.

3. Copy of the lease from Haile Mines, Inc. to Halper Construction Company, Inc.

4. Copy of the sublease.

5. Copy of the assignment of lease from Halper Construction Company, Inc. to Pacific Uranium Mines Company.

Forms MF-203, Owner's Consent to Lien, have been forwarded to the applicant for signature of all claim owners.

W. M. Traver

Enclosures

W. M. Traver

PACIFIC URANIUM MINES COMPANY

SUITE 210

292 SOUTH LA CIENEGA BLVD.

BEVERLY HILLS, CALIFORNIA

OLEANDER 5-7771

December 22, 1955

DMEA
Date Rec'd.

DEC 27 1955

BUREAU OF MINES
Denver, Colorado

E. N. Harshman
Acting Executive Officer, DMEA
Field Team, Region III
U.S. Department of the Interior
224 New Customhouse
Denver 2, Colorado

Dear Sir:

Re: Docket DMEA 3928 (Uranium), Green River claims, Emery County, Utah

Enclosed herewith are the following Exhibits:

1. Copy of the lease from claim owners to Haile Mines, Inc.;

2. Copy of the lease from Haile Mines, Inc. to Halper Construction Co., Inc.;

3. Copy of the sub-lease; and

4. Copy of the Assignment of Lease from Halper Construction Co., Inc. to Pacific Uranium Mines Company.

Haile Mines, Inc. does not hold an overriding royalty on production.

The correct spelling of the Wills claims is Wills.

We shall appreciate your expediting the processing of our papers in connection with this matter.

With best wishes for a Happy Holiday Season and a Prosperous New Year.

Very sincerely yours,

PACIFIC URANIUM MINES COMPANY

By Ira Kirkbak

IK:sk

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

224 New Customhouse
Denver 2, Colorado

December 28, 1955

Mr. Irving Klubok
Pacific Uranium Mines
292 South La Cienega Boulevard
Beverly Hills, California

Re: Docket DMEA-3928

Dear Mr. Klubok:

This will acknowledge receipt of your letter dated December 22, 1955 and the leases which were attached.

Enclosed are the original and five copies of Form MF-203, Owner's Consent to Lien. Will you please have all of the claim owners sign all copies and return them to this office so that we may continue to process your application.

Very truly yours,

W. M. Traver

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

Enclosures

HMC:pw

cc: DMEA-3928
Sec.Cp.Comm. (2)
Chron

12/27/55 gla

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

RECEIVED
DEC 19 1955

December 14, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 3928 (Uranium), Pacific Uranium Mines Company, Green River claims, Emery County, Utah

Enclosed are the original and three copies of a Joint Report of Examination on the subject docket.

The field examiners recommend an exploration program slightly modified from that proposed by the applicant. The recommended program consists of a maximum of 124 holes divided into three stages at an estimated total cost of $73,850.32, Government's participation $55,387,74. We concur in this recommendation.

In accordance with instructions in your letter dated September 2, 1955, we have requested a copy of the lease and a copy of the sublease from the applicant and Owner's Consent to Lien and Subordination Agreement, if necessary will be prepared in this office.

There is a discrepancy in the spelling of the Willis claims. The applicant has been requested to advise the correct spelling.

Enclosed for possible use in the contract are nine copies of Figure 2 and nine copies of Figure 3.

ON-SITE EXAM.

for J. W. Lawrence

Enclosures

E. N. Harshman
Acting Executive Officer, DMEA
Field Team, Region III

START

Reviewed by
DMEA OPERATING COMMITTEE
12-23-55
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

RECEIVED DEC 19 1955

December 9, 1955

DEC 19 1955

TRANSMITTED
DEC 14 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 3928 (Uranium), Pacific Uranium Mines Company, Green River claims, Emery County, Utah

Enclosed are the original and nine copies of a joint engineering and geologic report by W. D. McMillan, Bureau of Mines, and F. M. Byers, Jr., Geological Survey, covering their examination of the subject property.

The applicant proposed a program of exploration for uranium ore consisting of 108 drill holes at an estimated total cost of $67,740.00. The examining team concludes that exploration of the western part of the claim group is warranted, and they recommend a program of exploration slightly modified from that proposed by the applicant. Their recommended program consists of a maximum of 124 holes divided into three stages. The estimated total cost of this revised program is $73,850.32, Government participation 75 percent or $55,387.74.

We concur with the recommendation.

Please note the discrepancy in the applicant's spelling of the Willis claims. On the map submitted with the application the claims are shown as Wills while in the text the claims are shown as Willis. The engineer reports that the claims are shown in the County Recorder's office as Willis, and apparently this is the correct spelling.

John F. Shaw
John F. Shaw
Supervising Mining Engineer

E. N. Harshman
E. N. Harshman
Member, Field Team

Reviewed by
DMEA OPERATING COMMITTEE
12-23-55
(date)

Enclosures (10)

ENHarshman:rh

MINERAL DEPOSITS
DMEA
RECEIVED
NOV 8 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. BOX 360
GRAND JUNCTION, COLORADO

November 4, 1955

RECEIVED
DEC 19 1955

TRANSMITTED
DEC 14 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: J. William Hasler

Subject: DMEA 3928 (Uranium), Pacific Uranium Mines Company, Red, Ajax, Ajax Fraction, Wills, Wills Fraction, and Jeannie claims, Emery County, Utah

Enclosed is the geologic report to be included with a joint engineering report on the above-mentioned property. The report is submitted as a result of a field examination made September 22, 1955, by F.M. Byers, Jr., USGS, and W. D. McMillan, USBM, relative to an application for aid in exploration for uranium.

The Pacific Uranium Mines Company's property is underlain by northerly-trending belts of Jurassic, Brushy Basin member, of the Morrison formation and overlying the Cretaceous "Buckhorn conglomerate" and "Cedar Mountain" shale and the Mancos shale. The sequence dips gently eastward, so that the Brushy Basin member crops out on the westernmost part of the property and the Mancos shale in the eastern part. The Jurassic Salt Wash member of the Morrison formation crops out in a cuesta, dipping easterly one-half to three-fourth mile west of the property, and dips under the subject property. The top of the Salt Wash ranges from 100 feet between the surface in the westernmost corner of the property to more than 600 feet below the surface in the easternmost part of the property. Therefore, drilling for Salt Wash type of ore deposits known in the area is feasible only in the western part of the property where drilling depths are less than 450 feet.

Reviewed by
DMEA OPERATING COMMITTEE
12-23-55
(date)

The Pacific Uranium Company's property lies on the east flank of the San Rafael Swell. The strike of the beds is slightly east of north. The dip averages about 7° in the western portion of the property and dips from 3 to 6° in the eastern portion of the property. Uranium-vanadium ore bodies occur at one to three ore zones in the thick sandstone ledge comprising the upper part of the Salt Wash member of the Morrison formation. The uppermost ore zone on the property is at least 15 feet below the top of the sandstone and, more commonly, it is 20 to 30 feet. The second ore zone is about 45 feet below the sandstone and the third lies 70 to 80 feet below the top. The uranium-vanadium ratio is about 1:2 in the area and the deposits are elongate in a direction parallel to the primary sedimentary trends in the Salt Wash sandstone and are probably associated with ancient stream channels. The sedimentary trends range from due north to north 30° east and some of the ore bodies also trend north 30° east.

The ore bodies presently being mined in the area are on the order of a few thousand tons, and their occurrence and extent are probably controlled by festooned cross-lamination. There are approximately 31,000 tons of indicated ore that average 0.30 percent U_3O_8 and about 58,000 of inferred ore that averages 0.30 percent U_3O_8 immediately adjacent to the Pacific Uranium Mines Company property.

The exploration program, as outlined by the applicant, has been modified as a result of the field examination and has been discussed and meets with the approval of the applicant. The program consists of three stages, totaling 37,802 feet of both non-core and core drilling. It is

felt that the program, as outlined in the geologic report, has been well planned and will adequately test the subject property.

It is concluded the chances of discovering ore bodies in the range of several thousand tons of commercial grade are good and it is recommended that the program, as outlined in the report, be approved and that a contract be prepared to execute the work. I concur with the recommendations of the examining field team.

The Atomic Energy Commission has been consulted regarding the appraisal of the property.

Enclosed are the required number of maps for inclusion in the joint report and the applicant's brochure is enclosed also.

J. William Hasler

J. William Hasler,
Geologist

JWH/mlr

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

RECEIVED
DEC 19 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
DEC 14 1955

DMEA 3928

PACIFIC URANIUM MINES COMPANY

RED, AJAX, AJAX FRACTION, WILLIS, WILLIS FRACTION, AND JEANNIE CLAIMS

EMERY COUNTY, UTAH

Uranium

Joint Engineering and Geologic Report

By

F. M. Byers, Jr., Geologist
Geological Survey

W. D. McMillan Mining Engineer
Bureau of Mines

December 8, 1955

Reviewed by
DMEA OPERATING COMMITTEE
12-23-55
(date)

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RECEIVED
DEC 19 1955

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DMEA 3928

PACIFIC URANIUM MINES COMPANY
GREEN RIVER CLAIM GROUP
EMERY COUNTY, UTAH

By W. D. McMillan and Frank M. Byers

SUMMARY

Pacific Uranium Mines Company applied to the Defense Minerals Exploration Administration for Government assistance in exploration of their leased uranium claims in Emery County, Utah, on the east slope of the San Rafael Uplift, 18 miles northwest of Green River, Utah. Their proposal was for plug-bit and core-bit drilling at an estimated cost of $67,740.00 for 37,200 feet in 108 holes averaging 344 feet in depth.

A field examination was made on September 22, 1955.

The uranium ore-bearing bed on the subject claims consists of conglomeratic sandstone with inclusions of green mudstone and asphaltic and other carbonaceous material in the upper one-third of the Salt Wash member of the Jurassic Morrison formation, which in this area is overlain by the Brushy Basin member of the Morrison, which in turn is overlain by the Cretaceous Buckhorn conglomerate.

There are operating mines along the western and northern boundaries of the subject claims which to July 1, 1955, had produced 10,163 tons of ore, and which have indicated and inferred reserves of 63,552 tons. On the applicant's claim, exploration to date has indicated 6,000 tons of ore with a grade of 0.~~29~~ 38 percent U_3O_8. The trend of the channels passes through the proposed exploration area.

A revised plug-bit and core-bit program in three stages has been agreed upon by the applicant as the result of a conference with the examining team, and the team recommends approval of a short-form contract specifying 31,882 feet of plug-bit drilling and 5,920 feet of core-bit drilling, a total of 37,802 feet in 124 holes at an estimated total cost of $73,850.32. Government participation at 75 percent would be $55,387.74.

INTRODUCTION

Pacific Uranium Mines Company applied to the Defense Minerals Exploration Administration for Government assistance in the exploration by diamond plug-bit and core-bit drilling of the western part of 54 leased claims in the Green River district. Their proposal was for a first stage of 46 holes on a 400-foot pattern on 14 claims, followed by a second stage of 38 holes at the intersection of diagonals from the favorable first stage holes, this in turn to be followed by a third stage of 24 holes on a 400-foot pattern on 24 claims to the east. The estimated total amount of drilling was 37,200 feet at an estimated total cost of $67,746.00.

An examination was made on September 22, 1955, by a DMEA Region III examining team consisting of W. D. McMillan of the Bureau of Mines and Frank M. Byers and Carl H. Roach of the Geological Survey, accompanied by Robert L. Redmond, geologist, for Pacific Uranium Mines Company.

A modified program in three stages consisting of a first stage of 34 holes spaced at 400 feet in the northern claims and at 800 feet in

the southern claims, a second stage of 50 holes spaced at 200 and 400 feet around favorable or better first stage holes, these to be followed by 40 holes spaced at 100-foot and 130-foot intervals. The estimated total amount of drilling in the modified program is 37,802 feet at an estimated cost of $73,850.32. Government participation at 75 percent would be $55,387.74. All of this drilling would be in the western claims.

This modified program was acceptable to the applicant's geologist and was later approved by Hugh W. Evans, Chief Engineer of Pacific Uranium Mines Company.

ACKNOWLDGMENTS

DMEA geologists Carl H. Roach, who was present during the field examination, and Donald D. Haynes, who has recently prepared a final report on Uranium Prospectors property (DMEA Docket 3620) adjoining the applicant's property on the north, were consulted frequently during the preparation of this report. H. S. Johnson, who is engaged in resource appraisal in the San Rafael region and made the initial examination on the Uranium Prospectors property (DMEA Docket 3767) about 1 mile north of the Pacific property, provided helpful information in planning the drilling program. Isadore Million, geologist of the Atomic Energy Commission, who worked in the area, was also consulted.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Green River claim group consists of 40 claims and 14 fractions located in sections 22, 26, 27, 34, and 35, T. 21 S., R. 14 E., Salt Lake principal meridian, in the eastern central part of Emery County, Utah, as shown in figure 1. The claims are the Willis Nos. 1 to 9, inclusive; Willis Fractions Nos. 6 and 9; the Ajax Nos. 1 to 25, inclusive; the Ajax Fractions Nos. 1 to 8, inclusive, 9, 13, 14, and 21; the Red Nos. 1 to 5, inclusive; and the Jeannie No. 1. The Green River claim group is in a valley on the eastern flank of the San Rafael uplift. The claims are reached by traveling northwest from Green River, Utah, on U. S. Highway 6-50 for 12 miles and then northeast for 6 miles on a graded road, crossing Saleratus Wash, to the north end of the claims.

Moab, 69 miles southeast, is the nearest source of major supplies.

Vegetation is the desert type consisting of sagebrush, cactus, and sparse cottonwoods in some of the dry washes. Access to the property is fairly easy except in the early spring, and drilling sites and access roads can be prepared at a reasonable cost.

The area has a mean elevation of 4,400 feet with relief of 200 feet.

The climate of the area is arid, with great extremes of temperature from a high of 115° F. in the summer and of minus 35° F. in the winter. Underground mining operations are feasible throughout the year, and surface drilling operations can be done except during periods of extreme cold weather.

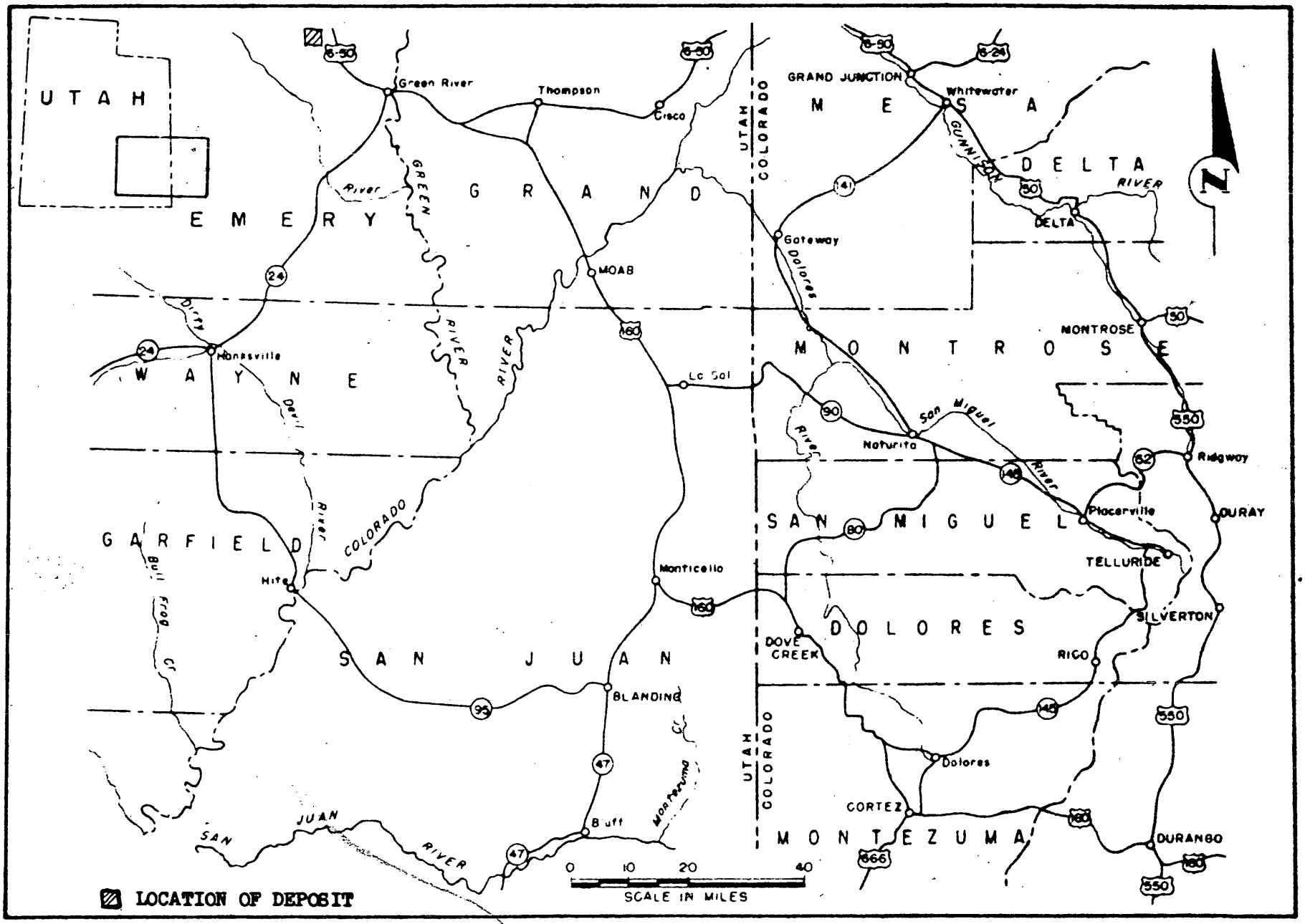

FIGURE 1 - LOCATION MAP, PACIFIC URANIUM MINES COMPANY, GREEN RIVER CLAIMS, EMERY COUNTY, UTAH. DMEA 3928

The market for uranium ores from the subject claims is the purchasing depot at Green River, 19 miles southeast.

There is no timber for mining purposes on or near the claims, but it can be obtained from lumber yards at Green River. Power needs must be furnished by gasoline or diesel driven units. Water for drilling purposes is available from the San Rafael River approximately 1.5 miles from the claims. Domestic water must be hauled from Green River.

LABOR AND LIVING CONDITIONS

Unskilled labor is available from the local towns, but skilled labor would have to be brought from Moab or Price. The proposed exploration project would be executed by a drilling contractor, who would furnish all the necessary labor. Adequate living accomodations are available at Green River, Utah, but house trailers would probably be used on the project.

HISTORY, PRODUCTION, AND OWNERSHIP

The mining history of the Green River Mining district is fairly recent but within the past two years, Four Corners Uranium Company's holdings due west of the subject claims have developed a large tonnage of uranium ore and are at present operating seven inclines. Shipments averaged during the first nine months of 1955, about 900 tons of ore monthly. The average grade of the ore shipped from each of the seven inclines ranged from about 0.20 to 0.40 percent of U_3O_8 and from about 0.25 to 0.90 percent of V_2O_5; in general the higher V_2O_5 : U_3O_8 ratios

were associated with the richer ores. The total tonnage shipped during the period 1948 to October 1, 1955, is 12,918 tons; about 90 percent of this production, however, was during 1954 and the first three quarters of 1955. Hence, the district is relatively new and probably has a considerable future productive potential.

The claims directly north of the Red and Ajax are owned and currently being explored by Uranium Prospectors, Ltd. A shaft 280 feet north of Pacific Uranium Mines Company's property line should be completed in October 1955. There has not been any production to date from Pacific's claims.

The names of the subject claims are the Willis Nos. 1 to 9, inclusive; Willis Fractions Nos. 6 and 9; Jeannie No. 1; Red Nos. 1 to 5, inclusive; Ajax Nos. 1 to 25, inclusive; and the Ajax Fractions Nos. 1 to 8, inclusive; Nos. 9, 13, 14, and 21, a total of 40 claims and 14 fractions, as shown in figure 3.

These claims were located jointly by R. Wareham, E. C. Wareham, L. P. Brown, and E. Olson. The date of location for the Willis Nos. 1 to 9, Jeannie No. 1, and Ajax 1 to 22 is June 7, 1954, and for the Red Nos. 1 to 5 is June 26, 1954. These were duly recorded at the Recorder's Office at Castle Dale, Emery County, and on December 10, 1954, the Ajax Nos. 1 to 22, Willis Nos. 1 to 9, and Jeannie No. 1 were recorded under Public Law 585, Certificates Nos. 116, 423 to 116,454 inclusive.

Due to the fact that the Willis, Jeannie, and Ajax claims were erroneously reported as being in Book J-1, instead of J-23,

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considerable time was lost, and the records of Ajax 23 to 25 and the various fraction claims under Public Law 585 were not verified. The locators leased the property to Haile Mines, Inc., who in turn sold their lease to Pacific Uranium Mines Company. Copies of these documents were not attached to the application. In the event that a contract is approved, clarification of the title to Ajax Nos. 23 to 25, inclusive, Willis Fractions Nos. 6 and 9, Ajax Fractions Nos. 1 to 8 inclusive, Nos. 9, 13, 14, and 21 and copies of Haile Mines, Inc., lease and the bill of sale of this lease to Pacific Uranium Mines Company should be obtained.

PRESENT STATUS

Exploration and development

To date exploration and development consists of a total of 36 diamond drill holes, the locations of which are shown on figure 2. Haile Mines Company drilled 17 holes of which 5 encountered above average grade ore, 7 indicated a slight gamma-ray count, and 5 were barren but disclosed favorable sandstone.

Pacific Uranium Mines Company drilled 19 offset holes around the ore holes previously drilled, 6 of which encountered ore and 4 indicated mineralization. Another 5 holes assayed from a trace to 0.07 percent U_3O_8 and gamma-ray probing by an A. E. C. truck indicated values in excess of 0.20 percent U_3O_8.

Mining equipment and other facilities

None.

GEOLOGY

Stratigraphy

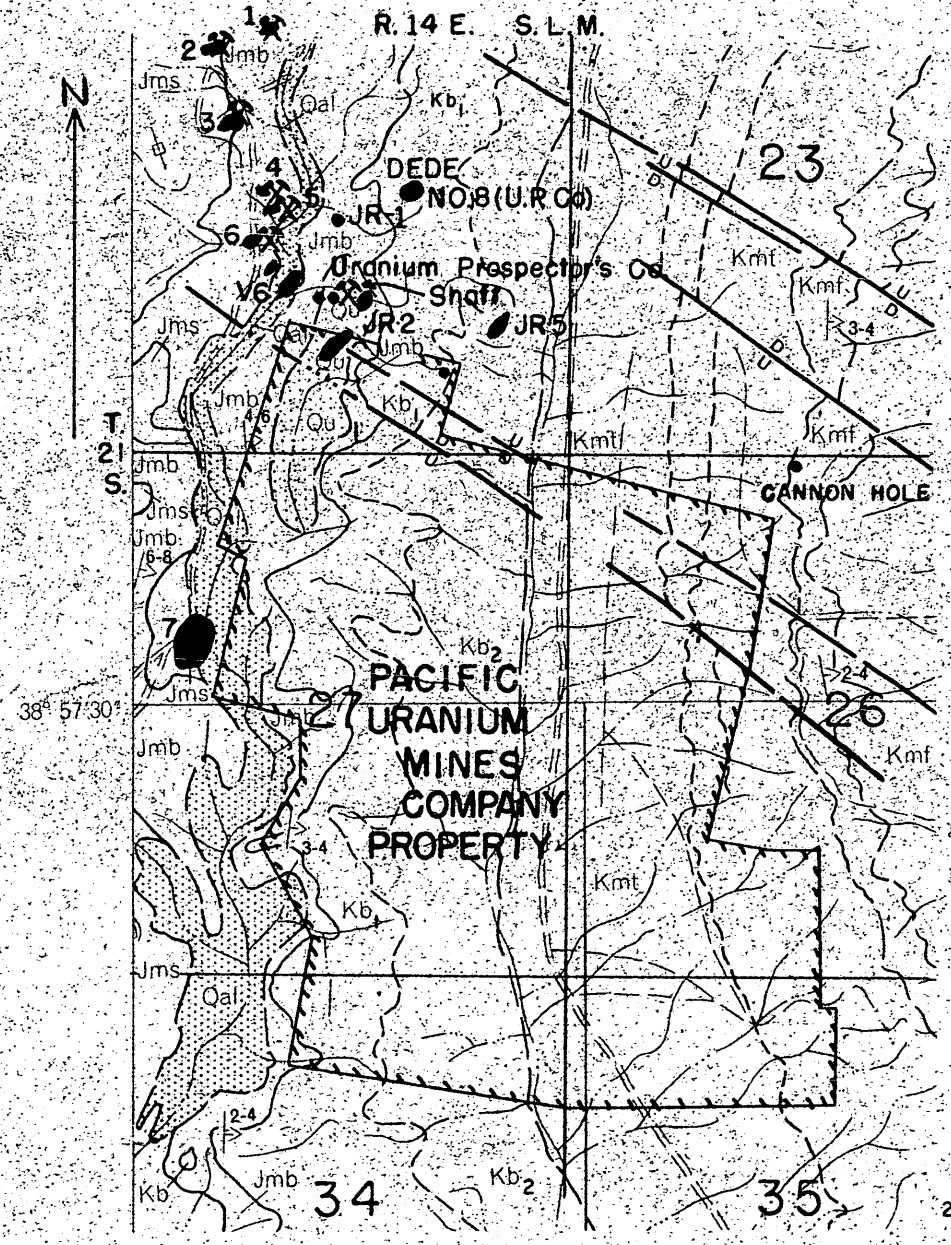
The Pacific Uranium Mines Company property is underlain by northerly-trending belts of the Jurassic Brushy Basin member of the Morrison formation, the Cretaceous "Buckhorn conglomerate," the "Cedar Mountain shale," and the Mancos shale. The rocks dip gently eastward so that the Brushy Basin member crops out in the westernmost part of the property (fig. 2) and the Mancos shale in the eastern part. The Jurassic Salt Wash member of the Morrison formation crops out in a broad easterly-dipping cuesta, one-half to three-quarters of a mile west of the property and dips under the applicant's property. The top of the Salt Wash ranges from slightly more than 100 feet beneath the surface at the westernmost corner of the property to more than 600 feet below the surface in the eastern part of the property. Therefore, drilling for the Salt Wash-type of ore deposits presently known in the area is feasible only in the western part of the property, where drilling depths are less than 450 feet.

The stratigraphic column is summarized below:

Age	Unit	Symbol, fig. 2		Total thickness (feet)
Cretaceous	Mancos shale	(Kmt, Kmf, Kmu)		3,000+
	"Cedar Mountain shale"	(Kb_2)	Burro Canyon equivalent	100
	"Buckhorn conglomerate"	(Kb_1)		30
Jurassic	Brushy Basin member	(Jmb)	Morrison formation	300
	Salt Wash member	(Jms)		200
	Summerville formation			200

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3928 1955



EXPLANATION

Qal / Qu

QUATERNARY DEPOSITS
(ALLUVIUM, Qal; UNDIFFERENTIATED SAND, ETC., Qu)

Kmu / Kmf / Kmt

CRETACEOUS MANCOS SHALE
(UPPER PART Kmu; FERRON(?) SANDSTONE MEMBER, Kmf; TUNUNK SHALE MEMBER, Kmt)

Kb_2 / Kb_1

CRETEOUS BURRO CANYON FORMATION
(INCLUDES "BUCKHORN CONGLOMERATE", Kb , AND "CEDAR MOUNTAIN SHALE", Kb)

Jmb / Jms

JURASSIC MORRISON FORMATION
(BRUSHY BASIN SHALE MEMBER, Jmb; SALT WASH SANDSTONE MEMBER, Jms)

2-4

STRIKE AND DIP OF BEDS

2

INCLINE OR VERTICAL SHAFT
(NUMBERS DESIGNATE WORKING INCLINES OF FOUR CORNERS URANIUM CORPORATION)

ORE BODY
(BODIES WITH PREFIX JR, JACK RABBIT CLAIMS: BODIES WITH PREFIX V6, VANURA 6 CLAIMS)

ORE-BEARING HOLE

Note: BASE FROM U.S. GEOLOGICAL SURVEY PHOTOGEOLOGIC QUADRANGLE MAP TIDWELL3.

2000 0 4000 FEET

Figure 2. GENERALIZED GEOLOGIC MAP SHOWING ORE BODIES AND ORE HOLES, PACIFIC URANIUM MINES COMPANY PROPERTY, EMERY COUNTY, UTAH

The "Buckhorn conglomerate" and the "Cedar Mountain shale" were proposed by Stokes (1944), but inasmuch as these names are not accepted by the U. S. Geological Survey, both units are shown as Burro Canyon (Kb) on the photogeologic base map. The names, however, are in local geologic usage and hence are used in this report. The "Cedar Mountain shale" may be equivalent to the Dakota sandstone farther east, but such stratigraphic problems are beyond the scope of this report.

The Salt Wash member of the Jurassic Morrison formation, as penetrated in many drill holes on the Pacific Uranium property, contains a thick sandstone unit in the upper part and consists of largely mudstone in the lower part. The sandstone unit is commonly fairly massive with few mudstone partings and ranges from 26 to 87 feet in thickness; thicknesses greater than 45 feet were penetrated in nearly all the drill holes. Where the sandstone is ore bearing, it is more than 50 feet thick, and the underlying mudstone unit is green in its upper 10 to 15 feet. Ore zones occur at one to three horizons. Where the sandstone is thick, it is also conglomeratic. Where the sandstone unit becomes thin, the mudstone immediately below probably intertongues laterally with the lower part of nearby thicker sandstone. In short, the upper part of the Salt Wash consists of one sandstone ledge; the lower part, of mudstone with subordinate thin siltstone and sandstone beds.

A generalized stratigraphic section of the Salt Wash member was estimated at the outcrop three-quarters of a mile west, where the sandstone ledge in the upper part is regarded as being semi-favorable to unfavorable for the occurrence of ore deposits. The section is tabulated below:

Table 1.--Generalized stratigraphic section - Salt Wash

Footage	Lithology
Top of section	Brushy Basin mudstones.
30' - 40'	Sandstone, contains widely separated small pods of uranium ore, 5 to 20 feet below top.
30' - 50'	Siltstone and mudstone, green and red mottled, a few sandstone interbeds less than 4 feet thick.
100' ±	Two to three sandstone or siltstone beds, 10 to 20 feet thick, separated by red and green mottled mudstone.
Bottom	Summerville shales and siltstone.

STRUCTURE

The Pacific Uranium Mines Company property lies on the east flank of the San Rafael Swell. The strike of the beds is slightly east of north. The dip averages about 7 degrees east on the upper Salt Wash cuesta just west of the area shown on figure 2. The dip ranges from 3 to 6 degrees east at the western extremity of the Pacific Uranium property and flattens eastward. Two parallel high angle faults strike N. 60° W. across the north end of the property (fig. 2). These faults have less than 20 feet displacement.

According to Redmond, the more northerly fault at the northernmost end of the Pacific Uranium property drops a northerly segment of an ore body about 15 feet downward with respect to the southerly larger segment. This displacement is opposite to that shown on the photogeologic map, figure 2. Possibly the relative displacement changes along the strike of the fault.

ORE DEPOSITS

Uranium-vanadium ore bodies occur in one to three ore zones in the thick sandstone ledge comprising the upper part of the Salt Wash member of the Morrison formation. The uppermost ore zone beneath the Pacific Uranium property is at least 15 feet below the top of the sandstone; more commonly it is 20 to 30 feet. The second ore zone, if present, is commonly about 45 feet below the top of the sandstone; and the third 75 to 80 feet below the top, according to H. S. Johnson (DMEA report 3767, June 3, 1955). The uranium-vanadium ratio is about 1 : 2. According to Johnson, the deposits are elongate in a direction parallel to the primary sedimentary trends in the Salt Wash sandstone and probably are associated with an ancient stream channel. The sedimentary trends range from due north to N. 30° E.; a few known ore bodies also trend N. 30° E., but the Dede No. 8 ore body of the Uranium Prospectors Company, Ltd., (fig. 2), which was indicated by drilling under DMEA contract Idm-E792 (Docket 3620), appears to have no well defined trend.

The ore bodies appear to become larger and the geologic environment more favorable downdip from the Salt Wash outcrop to the west, where ore bodies are limited to a few hundred tons by highly festooned crossbedding. Also at the outcrop, the upper Salt Wash sandstone ledge is only 30 to 40 feet thick and can at best be regarded as semi-favorable for ore. The ore bodies presently being mined by inclines 1 to 6 of Four Corners Uranium Corporation and the Dede No. 8 ore body (fig. 2) are of the order of a few thousand tons, and their occurrence and

extent is probably controlled by festooned cross-lamination (Carl H. Roach, personal communication, 1955). The ore body at incline 7, the larger Vanura No. 6 ore body, the ore body at the north end of Pacific Uranium Mines property (fig. 2), and one on the Jack Rabbit claims of the Uranium Prospectors Company to the north each contain several thousand tons of ore. The geologic controls of the larger ore bodies, as observed in many drill cores on Pacific Uranium Mines property, are believed to be flat-bedded festooned silt or mudstone laminae. The greater thickness of Salt Wash sandstone, and the more extensive green mudstone alteration associated with the sandstone, are also associated with the flatter bedding and the larger ore bodies by comparison with the geologic environment of the small deposits exposed in the Salt Wash rim to the west. At least the western part of the Pacific Uranium Mines Company property is underlain by part of a broad northerly-trending paleostream channel, highly favorable to the occurrence of uranium ore bodies of several thousand tons. The eastern edge of this ancient channel of favorable sandstone is not presently known.

ORE RESERVES

The known ore reserves underlying Pacific Uranium Mines and immediately adjacent properties are tabulated in table 2.

Table 2.--Ore reserves in the vicinity of Pacific Uranium Mines Company property, July 1, 1955 (AEC estimates)

Ore body	Claim	Property[a]	Indicated ore Tons	Indicated ore Percent U_3O_8	Inferred ore Tons	Inferred ore Percent U_3O_8
	Red 1 & 2	Pacific Uranium	6,048[b]	.25	7,560[b]	.25
Incline 1	Vanura	Four Corners	2,589	.34	5,150	.36
2	San Rafael	Four Corners	1,446	.25	3,940	.26
3	Betty A	Four Corners	1,254	.40	2,750	.40
4	Vanura No. 1	Four Corners	1,296	.28	2,480	.27
5	Vanura No. 5	Four Corners	1,783	.34	3,620	.34
6	Vanura No. 5	Four Corners	1,462	.38	4,710	.33
7	Desert Moon No.5	Four Corners	5,977	--	12,000	--
	Vanura No. 6	Four Corners	4,000[c]	--	8,000[c]	--
Block A	Dede No. 8	Uranium Prospectors	1,091[d]	.26	2,835[d]	.33
Block B	Dede No. 8	Uranium Prospectors				
(No name)	Jack Rabbit No.1	Uranium "				
Tract No. 2	Jack Rabbit No.2	Uranium "	4,600	.36	4,600	.36
Tract No.3	Jack Rabbit No.5	Uranium "				
Total tons and grade (approximate)			31,000	.30	58,000	.30

a/ Pacific Uranium = Pacific Uranium Mines Company.
Four corners = Four Corners Uranium Corporation.
Uranium Prospectors = Uranium Prospectors Co., Ltd.

b/ Estimate by Robert L. Redmond, Pacific Uranium Mines Company geologist.

c/ Estimate by F. M. Byers, after conferring with Isidore Million, AEC geologist, and Morton D. Strasburg, geologist, Four Corners Uranium Corp.

d/ Computed by D. D. Haynes, October 20, 1955, DMEA 3620, Idm-E792, Final Report in preparation.

PROPOSED EXPLORATION PROGRAM

The applicant has proposed drilling essentially a 3-stage program, Phase I consisting of two stages and phase II consisting of one stage. Under stage I of phase I (stage I as considered under DMEA) 46 holes totaling 1,380 feet of core drilling (30 feet, average per hole) and 12,420 feet of non-core drilling (270 feet, average per hole) would be drilled on the centers of a 400-foot grid pattern. Under stage II of phase I (stage II) 38 additional holes totaling 11,400 feet (30 feet of core drilling per hole) would be drilled at intersections of the diagonals from stage I holes on the 400-foot grid. The average depth of these holes would be about 300 feet. Finally, a phase II (actually a third stage) deep-drilling proposal would place 24 holes, averaging 500 feet deep and totaling 12,000 feet, on a 400-foot grid east of phase I drilling (stages I and II) (R. L. Redmond, 1955, fig. 6). By DMEA standards, the phase II drilling proposed by the applicant would not constitute a third stage but an entirely separate proposal.

Robert L. Redmond, geologist representing the applicant, has verbally agreed to a modified drilling proposal discussed below. Under stage I, holes D-1 through D-29 (fig. 3) in the northwest and west central part of the property are placed 400 feet apart at points similar to those proposed by the applicant. Holes D-30 to D-34 (fig. 3) in the southwest part of the property are placed approximately 800 feet apart at five of the 400-foot grid points originally proposed by the applicant. Favorable ore-bearing ground in this part of the

property has not been definitely established, but the area lies along the southerly extension of a known favorable ore-bearing trend in the Salt Wash.

Proposed drill hole D-19 on the Red No. 5 claim (fig. 3) is close to previously drilled mineralized holes (ore-bearing holes as determined by AEC gamma-ray probe), but is requested by the applicant as a check on the scanty information obtained from the nearby mineralized or ore-bearing holes.

As a guide in setting up the proposed stage I drilling program on Pacific Uranium Mines property (DMEA 3928), table 3 has been compiled from geologic logs of holes A-1 to A-15 (James E. Morgan, Jr., final company report DMEA docket 3620, contract Idm-E792), Uranium Prospectors Company, Ltd., that joins the applicant's property on the north. The cored stage I footage, excluding the two holes A-1 and A-15, which cored into the Summerville, is about 40 percent in excess of that necessary to core the ore-bearing sandstone. However, allowance was made for coring 10 to 20 feet of mudstone and siltstone, underlying the upper Salt Wash ore-bearing sandstone. Similarly, thin sandstone beds at or near the base of the Brushy Basin member were easily mistaken for Salt Wash by the driller, so that coring commonly began 10 to 20 feet above the top of the Salt Wash, as finally logged by the company geologist. In the opinion of the DMEA geologist, the amount of stage I cored footage under contract Idm-E792 appears reasonable.

It is recommended that an average of 80 feet of core per hole be allowed under any proposed contract with the applicant.

Table 3.--Cored footage and thicknesses of ore-bearing Salt Wash sandstone in Stage I drill holes, Uranium Prospectors Company, Ltd., Contract Idm-E792, DMEA docket 3620

Drill hole	Cored footage (feet)	Thickness of ore-bearing sandstone (feet)
A-1	100 a/	81
A-2	81	50
A-3	90	55
A-4	70	55
A-5	87	55
A-6	89	50
A-7	87	56
A-8	70	61
A-9	74	43
A-10	70	41
A-11	127	92
A-12	74	50
A-13	93	93
A-14	87	60
A-15	40 a/	27
Averages	82.6	58

a/ Total cored footage, 235 feet each, which penetrated through Salt Wash into Summerville formation; hence these figures are reduced to tabulated figures above, which would have been necessary to core ore-bearing sandstone, only.

The approximate depths and footages of core and non-core drilling under proposed stage I drilling has been calculated in table 4. Approximate elevations on the top of Salt Wash and collar elevations at each proposed stage I drill hole site have been obtained from data provided by Pacific Uranium Mines Company. Approximately 10,802 feet of drilling is proposed, of which 2,720 feet or about 25 percent should be cored, leaving 8,082 feet of non-core drilling. The 34 holes proposed as a first stage, would average about 318 feet in total depth, with a range of about 200 feet in the shallowest hole to about 450 feet in the deepest hole.

The maximum coring interval allowable averages 80 feet per hole; in general more footage should be cored in those holes where the ore-bearing sandstone of the upper Salt Wash is 80 feet or more in thickness, and less footage would be necessary where the upper Salt Wash sandstone is thin or unfavorable. Coring should begin as near as possible to the top of the ore-bearing sandstone at the top of the Salt Wash; in places, however, the top of this sandstone ledge cannot be determined in plug-bit drilling because of sandstone beds, as much as 20 feet thick, at or near the base of the Brushy Basin member of the Morrison formation. Coring should be stopped and the drill holes bottomed where there is reasonable assurance that the ore-bearing sandstone or stratigraphically equivalent sandstone at the top of the Salt Wash has been penetrated. This is normally demonstrated by at least 10 feet of mudstone and siltstone, especially if reddish or mottled reddish in color. The maximum footage for all 34 holes is 2,720 feet;

Table 4.--Approximate total depths and footages of core and non-core drilling under proposed Stage I drilling, Pacific Uranium Mines property (fig. 3), DMEA 3928

Proposed Drill Hole Number	Claims	Collar Elevation	Approximate Elevation top of Salt Wash	Approximate non-core drilling (feet)	Approximate core drilling (feet)	Total depth (feet)
D-1	Red No. 2	4403	4130	273	80	353
D-2	Red No. 2	4430	4090	340	80	420
D-3	Red No. 1	4424	4240	184	80	264
D-4	Red No. 1	4400	4200	200	80	280
D-5	Red No. 2	4403	4140	263	80	343
D-6	Red No. 2	4413	4100	313	80	393
D-7	Red No. 2	4442	4070	372	80	452
D-8	Red No. 1	4420	4250	170	80	250
D-9	Red No. 1	4395	4210	185	80	265
D-10	Red No. 4	4399	4160	239	80	319
D-11	Ajax No. 21	4431	4110	321	80	401
D-12	Red No. 1	4439	4250	189	80	269
D-13	Red No. 1	4396	4220	176	80	256
D-14	Red No. 4	4412	4190	222	80	302
D-15	Red No. 5	4450	4260	190	80	270
D-16	Red No. 5	4399	4230	169	80	249
D-17	Red No. 4	4397	4190	207	80	287
D-18	Ajax Fr. No. 21	4398	4130	268	80	348
D-19	Red No. 5	4364	4250	114	80	194
D-20	Red No. 5	4415	4230	185	80	265
D-21	Red No. 5	4422	4220	202	80	282
D-22	Ajax No. 23	4366	4190	176	80	256
D-23	Ajax No. 23	4374	4160	214	80	294
D-24	Ajax No. 23	4357	4190	167	80	247
D-25	Ajax No. 23	4363	4160	203	80	283
D-26	Ajax No. 15	4427	4110	317	80	397
D-27	Ajax No. 22	4352	4160	192	80	272
D-28	Ajax No. 15	4411	4110	301	80	381
D-29	Ajax No. 15	4431	4080	351	80	431
D-30	Ajax No. 14	4343	4120	223	80	303
D-31	Ajax No. 13	4424	4130	294	80	374
D-32	Ajax No. 13	4433	4080	353	80	433
D-33	Ajax No. 12	4351	4090	261	80	341
D-34	Ajax No. 5	4358	4110	248	80	328
				8,082	2,720	10,802

if the company geologist supervises the drilling closely and the ore-bearing sandstone is thinner than anticipated, a considerable footage of core drilling might be saved.

As stage II drilling (phase I, stage 2, of the applicant), the applicant has proposed that holes be drilled at intersections of diagonals from the 400-foot drill-hole grid of stage I. This proposal, however, assumes a random orientation of ore bodies, whereas a north-northeasterly trend has been demonstrated, which is essentially parallel to the ancient main stream channel. Therefore, it is suggested that an alternative stage II drilling program be considered that takes cognizance of both the north-northeasterly elongation of the ore bodies and the parallel trend of the paleostream channel in which the ore bodies lie.

The locations of all possible stage II holes that might be drilled if all stage I drill holes penetrated favorable sandstone with some significant mineralization, are shown on figure 3. These possible locations are shown in order to clarify the descriptions that follow.

Stage II drilling in the area of stage I holes D-1 to D-29 would consist of 200-foot offsets N. 75° W., and S. 75° E. from stage I holes, in directions parallel to the northern boundary of the property and essentially perpendicular to the ore-bearing Salt Wash channel. Stage I and stage II drill holes together would thereby constitute fences 400 feet apart and would further consist of holes every 200 feet along the fences similar to those proposed on the Jack Rabbit group of Uranium Prospectors property. (H. S. Johnson, geologic report, DMEA 3767, June 3, 1955).

Possible stage II drill holes in the area of stage I holes D-30 to D-34 would be added to complete fences of drill holes similar and parallel to those in the northern part of the property. This would involve a possible addition of 26 stage II holes over the 5 holes of stage I, but the maximum increase of 26 holes would be allowed only if every stage I drill hole, 30 to 34, inclusive, encountered favorable sandstone (Weir, 1952) and at least one or two of the holes were significantly mineralized. Evaluation of stage I drilling prior to stage II drilling would be done by DMEA representatives. These stage II holes are not strictly offsets (see stage III below) to stage I holes, but constitute an increased program warranted only upon demonstration that the favorable channel with some mineralization extends to the southern part of the applicant's property. The alternative would be to deny any drilling whatsoever in the area at present south of stage I drill hole D-29 and to suggest that the applicant submit a new application covering the southern area (drill holes 30-34, fig. 3), if significant reserves should be discovered in the northern area covered by stage I holes 1 to 29. However, it is believed that the present proposed program would cautiously explore the lesser known southern part of the property without wasting too much footage in the event that the southern area proved unfavorable. Under the present proposed program, little or no stage II drilling need be done, if the results of stage I drilling are negative.

As a possible maximum, 50 stage II drill holes are shown on figure 3. These holes need not completely penetrate the ore-bearing

sandstone, because of the stratigraphic control that would be provided by stage I drilling; hence an average depth of about 300 feet per hole and 40 feet of core drilling per hole should be sufficient to allow coring the principal ore zone or even two ore zones. An average of 260 feet of non-core drilling per hole out of a total average depth of 300 feet per hole would result in total non-core footage of 13,000 feet. Forty feet of core drilling per hole would result in a possible maximum 2,000 feet of core drilling for the 50 possible holes. These footages are somewhat in excess of those requested by the applicant, but would explore the property more thoroughly. Certain obvious omissions of proposed stage II holes, example, 200 feet S. 75° E. of stage I holes D-25 and D-27 (fig. 3), are due to cliffs capped by the "Buckhorn conglomerate" (Burro Canyon formation). If a contract is let for the proposed stage II drill holes, the contract should stipulate that no stage II drill hole should be closer than about 400 feet to any other previously drilled DMEA drilled hole in a N.-NE direction perpendicular to the fence of holes nor closer than about 200 feet to any DMEA drill hole in a W-NW direction along the fence (fig. 3).

The applicant has requested 1,200 feet of core drilling and 10,800 feet of non-core drilling under his phase II, which in a sense constitutes a third stage. It is recommended that this footage be allowed to the applicant under stage III for the purpose of offsetting significantly mineralized holes drilled under stages I and II, as described above, and also for the purpose of offsetting a few

significantly mineralized holes, such as hole G-16 on the Red No. 2 claim (fig. 3), drilled on the property prior to the time of the application. Stage III would provide about 40 holes, averaging about 300 feet total depth and about 30 feet of core drilling per hole. The grid pattern of stage III offsetting holes would be about 100 feet N. 75° W. or S. 75° E. from any previously drilled significantly mineralized drill hole and about 130 feet in a direction N. 20° E. and 180 degrees therefrom. The grid pattern spacing of 100 by 130 feet would thus be oriented N. 20° E., essentially parallel to the orientation of the longer plan dimension of the known ore bodies, and would evenly space stage III offset holes within the 400 feet between the fences.

All holes under stages I, II, or III should be drilled at least 100 feet from the boundary of the property.

PROJECT COSTS

The examining team concluded that the spacing in the southeastern part of the claims was too close for untested ground, and a modified program with the consent of the representative of the applicant was proposed with a total of 124 holes, with an estimated total amount of drilling of 37,802 feet and an estimated total cost of $73,850.32.

Stage I consists of 34 holes on a 400 and 800 non-rectangular grid as shown on figure 3, with a total estimated amount of drilling of 10,802 feet at an estimated total cost of $23,134.32.

Stage II consists of not more than 50 holes at 200 and 400 feet (see figure 3) from favorable holes in stage I, with a total estimated amount of drilling of 15,000 feet at an estimated total cost of $28,780.00.

Stage III consists of not more than 40 holes spaced at not less than 100 feet from ore holes in stages I and II, with an estimated total amount of drilling of 12,000 feet at an estimated total cost of $21,936.00.

Table 4 gives the specifications of the stage I drill holes.

Stage I. (See Table 4, Fig. 3)

Estimated time for completion - 2 months

Basis: 2 drills, 23 shifts per month, 120 feet per drill shift

1) Independent contracts

Plug-bit drilling of 34 holes with an estimated total depth of 8,082 feet at competitive bid prices not to exceed $1.50 per foot	$12,123.00	
Core-bit drilling of 34 holes with an estimated total depth of 2,720 feet at competitive bid prices not to exceed $3.50 per foot	9,520.00	
Total independent contracts		$21,643.00

2) Labor, Supervision, and Miscellaneous

Supervisory costs, miscellaneous supplies, sampling and analyses, actual costs not to exceed $750 per month - 2 months at $750	1,500.00
Total Stage I	$23,143.00

Stage II (See Fig. 3)

Estimated time for completion - 3 months

1) Independent contracts

Plug-bit drilling not over 50 holes with an estimated total depth of 13,000 feet at competitive bid prices not to exceed $1.50 per foot	$19,500.00	
Core-bit drilling of 50 holes with an estimated total depth of 2,000 feet at competitive bid prices not to exceed $3.50 per foot	7,000.00	
Total independent contracts		$26,500.00

2) Labor, Supervision, and Miscellaneous

Supervisory costs, miscellaneous supplies, sampling and analyses, actual costs not to exceed $750 per month - 3 months at $750	2,250.00
Total Stage II	$28,750.00

Stage III

Estimated time for completion - 2 months

1) Independent contracts

Plug-bit drilling 40 holes with an estimated total depth of 10,800 feet at competitive bid prices not to exceed $1.50 per foot	$16,200,00	
Core-bit drilling 40 holes with an estimated total depth of 1,200 feet at competitive bid prices not to exceed $3.50 per foot	4,200.00	
Total independent contracts		$20,400.00

2) Labor, Supervision, and Miscellaneous

Supervision, miscellaneous supplies, sampling and analyses, actual costs not to exceed $750 per month - 2 months at $750		1,500.00
Total Stage III		$21,900.00
Total estimated cost of project		$73,793.00

6000'/mo
3000' dual
50 shots
60' [illegible]
120 day

SUMMARY OF PROJECT COSTS

(Plug-bit and core-bit drilling segregated)

1)

	STAGE I		STAGE II		STAGE III	
	Plug-bit 8,082 feet	Core-bit 2,720 feet	Plug-bit 13,000 feet	Core-bit 2,000 feet	Plug-bit 10,800 feet	Core-bit 1,200 feet
1) Independent contracts	$12,123.00	$ 9,520.00	$19,500.00	$ 7,000.00	$16,200.00	$ 4,200.00
2) Supervision and misc.	500.00	1,000.00	750.00	1,500.00	500.00	1,000.00
Totals	$12,623.00	$10,520.00	$20,250.00	$ 8,500.00	$16,700.00	$ 5,200.00
Totals per stage	$23,143.00		$28,750.00		$21,900.00	
Total cost of project			$73,793.00			
Costs per foot	$1.56	$3.87	$1.56	$4.25	$1.55	$4.33

For Contract Purpose

COST ESTIMATES FOR CONTRACT PURPOSES

Stage I		
Plug-bit drilling - 8,082 feet at $1.56	$12,607.92	
Core-bit drilling - 2,720 feet at $3.87	10,526.40	
Total Stage I		$23,134.32
Stage II		
Plug-bit drilling - 13,000 feet at $1.56	$20,280.00	
Core-bit drilling - 2,000 feet at $4.25	8,500.00	
Total Stage II		$28,780.00
Stage III		
Plug-bit drilling - 10,800 feet at $1.55	$16,740.00	
Core-bit drilling - 1,200 feet at $4.33	5,196.00	
Total Stage III		$21,936.00
Total Project		$73,850.32
Government participation at 75 percent		$55,387.74

CONCLUSIONS AND RECOMMENDATIONS

The total maximum footages of proposed core and non-core drilling on Pacific Uranium Mines Company property are summarized in the following table (see also fig. 3):

	No. holes	Average footage per hole			Total drilling footage		
		total depth	non-core	core	non-core	core	non-core and core
Stage I	34	318	238	80	8,082	2,720	10,802
Stage II	50	300	260	40	13,000	2,000	15,000
Stage III	40	300	270	30	10,800	1,200	12,000
Totals	124 (maximum)				31,882	5,920	37,802

The total non-core footage under stage I has been curtailed from the amount proposed by the applicant because some stage I holes have been eliminated in the southern part of the property. However, the maximum cored footages under proposed stages I and II and the maximum non-core footage under stage II are somewhat in excess of similar footages proposed by the applicant, but it is believed that the additional maximum footages would be justified if all proposed stage I holes penetrated favorable sandstone and significant uraniferous mineralization in some of them. Stage III drill holes are intended only as offsets to ore-bearing or significantly mineralized holes, previously drilled, but otherwise the footages are the same as those submitted by the applicant.

It is concluded that the chances of discovering one or more uranium ore bodies of several thousand tons in size are good, and it is recommended that the above program be approved.

REFERENCES CITED

Haynes, D. D., and Young, W. E., November 20, 1955, DMEA 3620, Contract Idm-E792, Uranium Prospectors Company, Ltd., Dede, Pee Wee, and Simon J. groups of claims, Final Report.

Johnson, H. S., June 3, 1955, DMEA 3767, Uranium Prospectors Co., Ltd., Jack Rabbit claims, Emery County, Utah - Uranium Geologic Report, 11 p.

Morgan, James E., Jr., July 1955, Final report, Docket No. DMEA 3620, Exploration project contract Idm-E792, Uranium Prospectors Co., Ltd., 17 p.

Weir, Doris Blackman, 1952, Geologic Guides to prospecting for Carnotite deposits on Colorado Plateau, U. S. Geol. Survey Bull. 988-B, 27 p.

Surname copy

Murphy
Selfridge
Robinson
Whitehead

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

DEC 15 1955 DEPARTMENT OF THE INTERIOR

DMEA

14X4402(G1) Revolving Fund,
Defense Production Act, Interior
(Allocated Working Fund to the Office
of the Secretary)

T E L E T Y P E

W. M. TRAVER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

RE DOCKET DMEA-3928, PACIFIC URANIUM MINES COMPANY,

PLEASE ADVISE STATUS OF APPLICATION.

George C. Selfridge

GEORGE C. SELFRIDGE
CHAIRMAN, OPERATING COMMITTEE

FMMurphy/gla
12-14-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Murphy
Confirmation to Region III

STOP

RCS.

12/16/55 glu

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

RECEIVED
DEC 16 1955

December 13, 1955

224 New Customhouse
Denver 2, Colorado

Pacific Uranium Mining Company
122½ South Vermont Avenue
Los Angeles 4, California

Re: Docket DMEA 3928 (Uranium), Green River claims, Emery County, Utah

Gentlemen:

Will you please forward this office a copy of the following Exhibits:

1. Copy of the lease from claim owners, E. Wareham, E. C. Wareham, L. P. Brown, and E. Olsen to Haile Mines, Inc.

2. Copy of the sub-lease of the claims from Haile Mines, Inc. to Pacific Uranium Mining Company.

Upon receipt of the above-named Exhibits, Owner's Consent to Lien forms will be prepared in this office and forwarded to you to obtain the owners' signatures.

If Haile Mines, Inc. holds an overriding royalty on production from the subject claims, a Subordination Agreement signed by Haile Mines, Inc. will be necessary. Upon receipt of advice from you that Haile Mines, Inc. does have an overriding royalty, we will prepare the Subordination Agreement in this office and forward it to you for proper execution.

We have noted a discrepancy in your spelling of the Willis claims. On the map submitted with your application, the claims are shown Wills, while in the text, the claims are shown as Willis. Please advise which spelling is correct.

Very truly yours,

E. M. Hawkman

E. M. Hawkman
Acting Executive Officer, DMEA
Field Team, Region III

HMC:ab

cc: Chair. Op. Comm. (2)
Docket 3928
Connors
Chron.

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

224 New Customhouse
Denver 2, Colorado

September 9, 1955

Memorandum

To: John F. Shaw

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3928 (Uranium), Pacific Uranium Mines Company, Green River Claims, Emery County, Utah.

Enclosed are two copies each of the following:

1. Letter dated September 2, 1955 from the Chairman of the Operating Committee to W. E. Traver.

2. Memo dated August 22, 1955, from R. F. Williams to E. H. Ellis - Review of application.

3. Memo dated August 10, 1955, from John E. Crawford to E. H. Ellis - Review of application.

The application was forwarded to you by E. H. Ellis on August 25, 1955, with a request for a field examination.

W. M. Traver
W. E. Traver

Enclosures

JEC:jy

cc: Sec. Opr. Comm. (4)
Harshman
Docket DMEA-3928
Connors
Chron.

700

Docket Copy
Please surname

Yogo
Nelson
Selfridge

SEP - 2 1955

Pacific Uranium Mines Company
12[illegible] South Vermont Avenue
Los Angeles 4, California

Re: Docket No. DMEA-3928 (Uranium)
Green River claims
Emery County, Utah

Gentlemen:

The application for assistance in exploring the subject property under the captioned docket number has been reviewed by the Rare and Miscellaneous Metals Division.

The DMEA Field Team, Region III, Mr. W. M. Traver, Executive Officer, 224 New Customhouse Building, Denver 2, Colorado, will schedule a field examination of your property in the near future if it has not already done so.

Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

FMurphy/GCSelfridge/am/hb (9/1/55)
Copy to: Docket
Admr. R. File
G. C. Selfridge
Code 700
Mr. Murphy
DMEA Field Team, Region III (2)

R.C.S.

Surname 700

Murphy
Ellis
Nelson
Yoge

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

Pacific Uranium Mines Company
122½ South Vermont Avenue
Los Angeles 4, California

Re: Docket No. DMEA-3928 (Uranium)
Green River claims
Emery County, Utah

Gentlemen:

The application for assistance in exploring the subject property under the captioned docket number has been reviewed by the Rare and Miscellaneous Metals Division.

The DMEA Field Team, Region III, Mr. W. M. Traver, Executive Officer, 224 New Customhouse Building, Denver 2, Colorado, will make a field examination of your property, if it has not already done so.

Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

Administrator

FMurphy:am
8-30-55
cc to: Admr. Reading File
Docket
Code 700
Mr. Murphy
DMEA Field Team, Region III(2)

Surname 700

Murphy
Ellis
Selfridge

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

SEP - 2 1955

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

Re: Docket No. DMEA-3928 (Uranium)
Pacific Uranium Mines Company
Green River claims
Emery County, Utah

Dear Mr. Traver:

This is to acknowledge your memorandum, dated August 25, and enclosures, relating to the above-docketed application.

Enclosed are copies of memoranda from John E. Crawford, dated August 10, and W. P. Williams, dated August 22, 1955, members of the Uranium Commodity Committee.

In the event the Field Team recommends a project on the captioned claims, it should advise the Applicant that we will require the following exhibits:

1. Copy of lease from claim owners' R. Wareham, E. C. Wareham, L. P. Brown, and E. Olsen to Haile Mines, Inc.

2. Copy of the sub-lease of the claims from Haile Mines, Inc., to Pacific Uranium Mining Company.

3. Six executed copies of Owners' Consent to Lien.

4. If Haile Mines, Inc., holds an over-riding royalty on production from the subject claims, then we will require six copies of a Subordination Agreement signed by Haile Mines, Inc.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SLB)

Enclosures

FMMurphy:am
8-31-55

APPROVED:

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

/s/ N. E. Nelson (SLB)
Member, Geological Survey

cc to: Admr. Reading File Operating Comm.
Docket
Messrs. J.E.Crawford,Rm.3641
T.H.Kiilsgaard,Rm.5222
J.O.Hosted,Rm.3210,GSA
Code 700
Mr. Murphy

R.C.S.

Sec. Opr. Comm. (2)

RECEIVED
AUG 31 1955

August 25, 1955

Memorandum

To: John F. Shaw

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 3928 (Uranium) Pacific Uranium Mines Company, Green River claims, Emery County, Utah

The subject application in the amount of $67,740.00 is enclosed herewith. The brochure consists of:

1. Form MF-103 with accompanying answer sheets and maps
2. Copy of Executive Officer's memo of August 24, transmitting the application to this office

You will note that the area covered by this application is in close proximity to the area covered by Docket DMEA 3871, Sharples Oil Company.

A field examination and suitable report are required. The completed report should be sent direct to Executive Officer, with a copy of the memorandum of transmittal to this office.

W. H. KING
W. H. King

Enclosures

Copy to: E. N. Harshman
W. M. Traver (3)

8/30/55 gla

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

RECEIVED
AUG 29 1955

August 25, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Appraisal relative to necessity for a field examination. Docket DMEA 3928 (Uranium), Pacific Uranium Mines Company, Green River Claims, Emery County, Utah

Enclosed are four copies of a memorandum report on the subject docket from the Grand Junction office.

A field examination is indicated and the Bureau of Mines brochure has been sent to the engineer.

The date of examination will be scheduled as soon as possible.

W. M. Traver

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
AUG 30 1955

Colorado Plateau District
P. O. Box 360
Grand Junction, Colorado

August 22, 1955

Memorandum

To: Executive Officer, Region III Through: E. N. Harshman

From: J. William Ruzler, USGS
M. K. Salsbury, USBM

Subject: Appraisal relative to necessity for a field examination. DMEA-3923 (Uranium) PACIFIC URANIUM MINES COMPANY, GREEN RIVER CLAIMS, Emery County, Utah.

The applicant has applied for assistance to explore for uranium on the Green River claims, Emery County, Utah, in which they plan to test an area adjacent to ground in which there has already been some 6,000 tons of measured reserves averaging 0.30 percent U_3O_8. The Four Corners Uranium Company, adjoining the applicant on the west, is now producing a reported 300 tons of uranium ore per month and has established reserves of considerable tonnage as a result of exploration work. The Uranium Prospectors Company, Ltd., have a DMEA loan (3767) pending approval on the Jack Rabbit group of claims that adjoin the Pacific Uranium Mines' property on the north. A comparison of claim maps in the area does not indicate any conflict. It is concluded that the chances of finding ore of commercial grade are good and it is, therefore, recommended that a field examination be made. The applicant's program will be closely studied and an amended program will be offered. The date of examination will be scheduled as soon as possible.

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

August 24, 1955

224 New Customhouse
Denver, Colorado

Memorandum

To: W. H. King

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3928 (Uranium) Pacific Uranium Mines Company, Green River claims, Emery County, Utah

Enclosed is the subject application in the amount of $67,740.00.

A field investigation and suitable report are requested.

W. M. Traver

W. M. Traver

Enclosure

8/23/55 gl

IN REPLY REFER TO:

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

August 22, 1955

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of DMEA application, Docket No. 3928, Pacific Uranium Mines Co., Green River claims, Emery County, Utah.

The site of the proposed exploration is south of and adjacent to DMEA 3767, Uranium Prospectors Co., Ltd. DMEA 3767 has been recommended for approval by the Field Team. The property is east of and adjacent to the Four Corners Uranium Company property which is reported to be producing about 300-500 tons per month. Deposits in the vicinity may range from 5,000 to 15,000 tons in size.

The property is located on the northeast flank of the San Rafael Swell. As a result the ore zone, the Salt Wash member of the Morrison, dips eastward 5° to 7°. Drilling depths, therefore, may be only 300 to 350 feet deep on the western part of the claims but may be as much as 700 feet deep on the eastern part.

The applicant has demonstrated the presence of uranium mineralization on the property by previously drilling 36 holes of which 11 penetrated ore-grade rock.

The property is favorably located, and it appears to me that further exploration with DMEA assistance would be appropriate. I recommend that the application be referred to the Field Team for review with the special object of discussing with the applicant a modified drilling program on the western part of the claims and with the initial holes placed near the existing mineralized holes at the north end of the property.

W P Williams

W. P. Williams

RECEIVED
AUG 2 2 1955

8/11/55 gla

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

August 10, 1955

Memorandum

RECEIVED
AUG 11 1955

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Application for assistance, DMEA Docket 3928, Pacific Uranium Mines Company, Green River claims, Emery County, Utah

I have reviewed the attached application for assistance, Pacific Uranium Mines Company, DMEA Docket 3928; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The Pacific Uranium Mines Company has done some drilling on its property and has blocked out 6,048 tons of ore with an average chemical assay of .25 percent U_3O_8. This reserve ore has a proven value of $160,496.00 and an inferred dollar value as high as $292,416.60.

The applicant proposes offset drilling in order to develop another average-sized ore-body of between 3,000 and 6,000 tons.

The tentative drill holes on the northwestern part of the claim appear to be less than 50 feet from the adjoining Four Corners Uranium Co. claims. Drill holes proposed in the first stage of the first phase seem well placed on 400-foot centers; this drill hole pattern is reduced to 200-foot centers by placing the second stage drill holes of the first phase also on 400-foot centers between the holes of the first stage.

The second phase drilling which is mainly in the eastern part of the claims may be warranted but the drilling plan could be modified to cover a larger area more efficiently.

In view of the amount of reserves present, I would not recommend the sinking of a shaft or drifting, which could be easily adapted to development work.

The costs for the proposed program appear reasonable for that particular area.

We recommend that the application be referred to the Field Team for an examination of the property and a study of the proposed exploration program in view of its approximation to a development program. The Field Team should also consult with Ernest R. Gordon, Atomic Energy Commission, Grand Junction, Colorado.

John E Crawford

John E. Crawford

Attachment

August 2, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

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

DMEA-3928 Pacific Uranium Mines Co.

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

August 2, 1955
Subject: DMEA-3928
Re: Exploration Assistance

Pacific Uranium Mines Co.
122½ South Vermont Avenue
Los Angeles 4, California

Gentlemen:

The receipt of your application dated July 15, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3928 and referred to the Rare and Miscellaneous Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932