DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE 1DM-E 967 DMEA NO. 3854

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(Withdrawn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 in lieu of audit
Termination Notice or Agreement
Recision Notice
Assignment of Contract
✓ Contract Amendments (latest on top)
✓ Contract with all exhibits and annexes
✓ Owner's Consent to Lien
✓ Subordination Agreement
Leases and assignments of leases
✓ Application and attachments
(3) Envelope for maps

Right Side

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

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

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

Right Side

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

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

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

9775

EXTRA COPY
DMEA

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

RECEIVED AUG 12 1957

DATE	INITIALS	CODE
8-12	JLC	
13	[illegible]	
13	[illegible]	
8/19	[illegible]	

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Four Corners Exploration Company
Box 116
Grants, New Mexico

Exploration Project Contract No. 16m-E967, Docket No. DMEA-[illegible], Amendments Nos. 1 and 2, for the months of October, 1956 to June, 1957, pertaining a project for the exploration of uranium on property known as [illegible] claims located in McKinley County, New Mexico.

My review included an examination of the Monthly Reports (Form MF-104) supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Executive Officer, Field Team, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the following reason:

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

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

Total cost as billed by Contractor		$45,125.27
Exceptions: (Schedule attached)		
By DMEA Finance Officer	$208.65	
Herewith	0.00	208.65
Total Accepted Cost		$44,916.62

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 Thirty-three thousand, six hundred eighty-seven and 46/100ths Dollars

** $33,687.46 **

is considered valid and proper, provided that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

August 9, 1957

T. H. Breding, Auditor

SCHEDULE OF EXCEPTIONS

FOUR CORNERS EXPLORATION COMPANY

Contract Idm-E967 Docket IMEA-3854

The contract provides that drill holes are to be bottomed 5 feet below the contact between the Todilto limestone and the Entrada sandstone. Holes as listed below were drilled in excess of 5 feet beyond the Todilto - Entrada contact; accordingly, cost of this excess footage is disallowed.

	Hole No.	Claimed	Allowed to Entrada Contact	Excess	
		CORE FOOTAGE			
October, 1956					
	B 13	10	5	5	
	H 7	9	5	4	
	H 11	7	5	2	
	J 13	10	5	5	
	J 11	10	5	5	
	Totals	46	25	21	
	21 feet at $3.90 per foot				$81.90
February, 1957					
	C 8	7	5	2	
	D 6	12	5	7	
	Totals	19	10	9	
	9 feet at $3.90 per foot				35.10
March, 1957					
	G 8	6	5	1	
	G 9	10	5	5	
	H 10	5.5	5	0.5	
	I 7	7	5	2	
	I 9	6	5	1	
	I 10	5.5	5	0.5	
	J 10	8	5	3	
	J 12	7	5	2	
	K 11	8.5	5	3.5	
	Totals	63.5	45	18.5	
	18.5 feet at $3.90 per foot				72.15
June, 1957					
	I 9.5	6	5	1	
	E 7.5	6	5	1	
	E 8.5	7	5	2	
	D 8.5	6	5	1	
	Totals	25	20	5	
	5 feet at $3.90 per foot				19.50
	TOTALS	153.5	100	53.5	$208.65

Disallowances made by Finance Officer are approved by Auditor.

EXPLORATION PROJECT CONTRACT
FOUR CORNERS EXPLORATION COMPANY, A COPARTNERSHIP
DOCKET NO. DMEA 3854
CONTRACT NO. Idm-E967

AMENDMENT NO. 2

It is agreed this 25th day of April, 1957 between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Four Corners Exploration Company, a copartnership, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E967, Docket No. DMEA-3854, dated July 17, 1956, hereinafter called the "Contract," that:

1. The period fixed in Article 1.(a), within which the Operator shall complete the work, is extended from "Ten (10)" to "twelve (12)" months from the date of the Contract.

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

Executed in sextuplicate the day and year first above written.

FOUR CORNERS EXPLORATION COMPANY

By F. G. Manel
F. G. Manel, Partner

By Irving Rapaport
Irving Rapaport, Partner

UNITED STATES OF AMERICA

By E. M. Hawkins
Acting Executive Officer,
DMEA Field Team, Region III

Official File
DMEA COPY
RECEIVED
DATE | INITIALS | CODE
1957

EXPLORATION PROJECT CONTRACT
FOUR CORNERS EXPLORATION COMPANY, A COPARTNERSHIP
DOCKET NO. DMEA-3854
CONTRACT NO. IDM-2967

AMENDMENT NO. 1

It is agreed this 16th day of January, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Four Corners Exploration Company, a Copartnership, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. IDM-2967, Docket No. DMEA-3854, dated July 17, 1956, hereinafter called the "Contract," that:

1. The period of "six months from the date of the contract." fixed in Article 1 (a), as the period within which the Operator shall complete the work, is changed to "ten (10) months from the date of the contract."

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

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

Executed in sextuplicate the day and year first above written.

FOUR CORNERS EXPLORATION CO.

By F. O. Manol
F. O. Manol, Partner

By Irving Bogaert
Irving Bogaert, Partner

UNITED STATES OF AMERICA

By W. M. Jones
Executive Officer, DMEA
Field Team, Region III

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 25 1957

DATE	INITIALS	CODE

Docket Cop

MF-200A
(Rev. April 1956)

RECEIVED
AUG - 6 1956

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT
(Short Form)

DMEA No.	*Commodity*	*Contract No. Idm–E*	*County*	*State*
3854	Uranium	967	McKinley	New Mexico

It is agreed JUL 17 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Four Corners Exploration Company, a Copartnership composed of F. O. Manol and Irving Rapaport.

whose mailing address is Box 116, Grants, New Mexico

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority and project.*—(a) This contract is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF–200A), the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed therein. The project work is a search for indicated or undeveloped deposits of the commodity designated above. The Operator shall begin the work on or before September 1, 1956, and, subject to the provisions of Article 7 and Exhibit A, shall complete the work within six months from the date of the contract.

(b) The description of the work and the fixed cost for each unit of work to be performed (per foot of drilling, per foot of drifting, per hour of operations, etc.) are hereby agreed upon as specified in Exhibit A. The estimated total cost of the project work is $48,424.00. The Government will contribute 75 percent of the fixed unit cost of the work performed, not exceeding $36,318.00, in accordance with the provisions of Articles 4 and 5.

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

ARTICLE 2. *Operator's property rights.*—(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's rights of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances: Royalty claims of eight parties

(b) 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 of the land (lessor, seller, optionor, etc.) are attached, as follows: Consent to Lien of Gulf Uranium and Development Co. Subordination Agreement of 8 royalty claimants.

(c) 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. 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. Two copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 6 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. *Performance of the work.*—(a) Operator's responsibility.—The work shall be performed diligently, efficiently, expertly, in a workmanlike manner, and in accordance with good mining standards and State regulations governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work, as specified in Article 1 (a).

(b) *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 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 4. *Contribution by the Government.*—The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5 (b); but all payments by the Government are provisional only, subject to audit, and until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been rendered, the Government may withhold such sums as it sees fit but not in excess of 10 percent of the estimated total cost of the work. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government will not contribute to the cost of any work performed prior to the date of this contract. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(a) Operator's records.—The Operator shall keep suitable records and accounts of the units of 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. 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 all pertinent books, documents, papers, and records of the Operator.

(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 a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit 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 the unit costs thereof.

(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 6. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered a sufficient final report (see Article 5), 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 (for example, if the Operator either transfers or fails to retain his interest in the land), shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

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

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent) after the lapse of six months from the date the ore was extracted from the ground remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time 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 7. *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 the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further 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 the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and 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 Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 7 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and liens to secure the payment thereof, and such rights shall be fully preserved.

ARTICLE 8. *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 the mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 9. *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 10. *Changes and added provisions.*—

.....

.....

.....

.....

.....

.....

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

FOUR CORNERS EXPLORATION COMPANY
(Operator)

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

By F. O. Manol (Partner)
(F. O. Manol)

By Irving Rapaport (Partner)
(Irving Rapaport)

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: 1956—O-383069

Indrts 7/11/56
Lawyer
"Appd. Sol. Off."

Ching
Ellis
Chambers
Selfridges
JE Johnson

EXPLORATION PROJECT CONTRACT
FOUR CORNERS EXPLORATION COMPANY
DOCKET NO. DMRA-3854

ANNEX I

The land referred to in Article 2 of the contract form consists of the unpatented lode mining claims Red Rock No. 3 and Red Rock No. 4, situated in section 24, T 13 N., R. 10 W., N.M.P.M. & B, McKinley County, New Mexico. The claims are shown on the map entitled "Figure 2, Red Rocks #3 and #4, Section 24, T. 13 N., R. 10 W., McKinley County N. M.," attached hereto and made a part hereof. The notices of location are recorded in the Office of the Recorder of McKinley County, New Mexico, in Book 3, Page 358.

The Four Corners Exploration Company owns a 50 percent interest in the land and the Gulf Uranium and Development Company owns the remaining 50 percent. The latter company has executed a Consent to Lien dated May 25, 1956, and in a letter of the same date to Four Corners Exploration Company expressed its full accord in the proposed exploration program. All holders of royalty interests in the land have signed the attached Subordination Agreement.

RECEIVED
JUN 27 1956

MF-201
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Four Corners Exploration Company
Docket No. DMEA-3854
Contract No. Idm-E
Contract Date

SUBORDINATION AGREEMENT

To the United States of America:

Referring to that certain land in the County of McKinley, State of New Mexico, described as follows:1/

Lode Mining Claims, Red Rock No. 3 and Red Rock No. 4, located in the South West Quarter (SW¼) of Section 24 in Township 13 North, Range 10 West, N.M.P.M., as per location notices thereof dated October 6, 1951, and recorded in the office of the County Clerk and Ex-Officio Recorder of McKinley County, New Mexico, on October 9, 1951, in Book 3, Mining Claim Record, page 358.

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. Subordinates whatever right, claim, lien or encumbrance the undersigned may have in or against the land to whatever interests, equities, and rights the Government may acquire under the contract (a) with respect to purchased property in or upon the land to the cost of which it has contributed, including the right to dismantle, sever, and remove it from the land; and (b) with respect to a percentage royalty on production from the land and a lien to secure the payment thereof; and

2. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Subordination Agreement; and (b) to give advance notice of this Subordination Agreement to any transferee of the right, claim, lien, or encumbrance hereby subordinated; and

3. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Subordination Agreement shall extend and apply thereto.

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.

(OVER)

Dated this _____ day of _____, 195__.

_____ [Seal]

_____ [Seal]

_____ [Seal]

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]

Volten S Tietjen (Seal)
Volten S. Tietjen

Theressa Tietjen (Seal)
Theressa Tietjen

C A Derryberry (Seal)
C. A. Derryberry

Avid Derryberry (Seal)
Avid Derryberry

L. L. Lincoln President (Seal)
Fidel and Rouse, Inc.

W. A. Thigpen (Seal)
W. A. Thigpen

J. T. Hutton (Seal)
J. T. Hutton

Parallee Hutton (Seal)
Parallee Hutton

MF-203
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Four Corners Exploration Company
Docket No. DMEA-3854
Contract No. Idm-E
Contract Date

RECEIVED
JUN 27 1956

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of _____, State of _____, described as follows:1/

_____

_____

_____,

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/

_____

_____

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: _____

_____

_____

_____

_____

_____

_____

_____

Dated this _____ day of _____, 195_.

_____ [Seal]

Robert K. White [Seal]

_____ [Seal]

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.

Henry C. Reynolds

[Corporate Seal]

EXPLORATION PROJECT CONTRACT
FOUR CORNERS EXPLORATION COMPANY
DOCKET NO. DMEA-3854

RECEIVED
AUG - 6 1956

EXHIBIT "A"

Description of the Work

General Provisions

The work consists of the preparation of access roads and drill sites by a D-7 bulldozer or equivalent unit and exploration by core and non-core (plug bit) drilling to test the Todilto limestone of Jurassic age. The location of the work is indicated on the map (Figure 2), referred to in Annex I.

Each hole shall be started with a plug bit and drilled non-core through the upper formations to the estimated position of the top of the Todilto limestone. Core drilling shall follow until the hole is bottomed five feet below the contact between the Todilto limestone and the underlying Entrada sandstone Drilling depths are expected to range from 292 feet to 441 feet and to average 358 feet. The minimum size of core shall be AX. All holes shall be reamed and cased as necessary.

All core and cuttings from the cored section of drill holes shall be saved and checked for radioactivity. Sections indicating significant mineralization shall be split for samples and such samples shall be analyzed chemically for uranium. All the remaining core and cuttings saved shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically, and the record of such logging and probing together with certified copies of all assay certificates shall be submitted to the Government with the Operator's monthly progress reports.

The project shall be supervised by a competent engineer or geologist who shall devote full time to the project work.

The location, direction, inclination, and extent of all project work are subject to the approval of the Government.

The work shall be divided into three stages as hereinafter described The Operator shall complete Stage I and perform as much of Stages II and III as the Government approves in writing in advance.

Stage I

Prepare access roads and drill sites and drill 31 holes aggregating not more than 11,100 feet as indicated on the map (Figure 2). The

holes shall be drilled on a 200-foot grid and all outside holes, with the exception of one, shall be located 200 feet or more from the property boundaries. If the 31 holes require more than 11,100 feet to reach the desired horizon, the additional footage and funds required may be transferred and deducted from Stage III upon the written approval of the Government. Stage I work shall be used to determine the location and trend of possible ore-bearing structures and to delineate areas that have a favorable thickness of Todilto limestone.

Stage II

Prepare access roads and drill sites and drill approximately 35 holes, aggregating not more than 12,530 feet, as offsets to favorable holes of Stage I. The offset holes shall not be drilled closer than 100 feet to any previously drilled hole or to the property boundaries. If the holes require more than 12,530 feet to reach the desired horizon, the additional footage and funds required may be transferred and deducted from Stage III upon the written approval of the Government.

Stage III

Prepare access roads and drill sites and drill not more than 21 holes aggregating not more than 7,580 feet as offsets to Stage I and Stage II holes that show significant mineralization. The offset holes shall not be drilled closer than 50 feet to any previously drilled hole nor closer than 100 feet to the property boundaries.

Estimated Cost of the Project

Fixed Unit Costs

(The unit costs include all costs whatsoever necessary to complete the work.)

Stage I

30 hours bulldozer work @ $12.50/hr.	$ 375.00		
10,000 feet nonecore drilling @ $1.25/ft.	12,500.00		
1,100 feet core drilling @ $3.90/ft.	4,290.00		
20 chemical sample analyses @ $3.50 each	70.00	$17,235.00	

Stage II

30 hours bulldozer work @ $12.50/hr.	$ 375.00	
11,300 feet non-core drilling @ $1.25/ft.	14,125.00	

1,230 feet core drilling @ $3.90/ft.	$ 4,797.00	
40 chemical sample analyses @ $3.50 each	140.00	$19,437.00
Stage III		
20 hours bulldozer work @ $12.50/hr.	$ 250.00	
6,780 feet non-core drilling @ $1.25/ft.	8,475.00	
740 feet core drilling @ $3.90/ft.	2,886.00	
40 chemical analyses @ $3.50 each	140.00	11,751.00
Estimated Total Cost of the Project (rounded)		$48,424.00
Government Participation @ 75%		$36,318.00

BOOK 7 PAGE 302

RECEIVED
MAY 2 - 1956

QUITCLAIM DEED

GLENN D. WILLIAMS and EDITH A. WILLIAMS, husband and wife, for consideration paid, quitclaim to FOUR CORNERS EXPLORATION COMPANY, a copartnership composed of F. O. Manol and Irving Rapaport, the following described real estate in McKinley County, New Mexico:

An undivided one-half (1/2) interest in
Lode Mining Claims,
Red Rock No. 3 and
Red Rock No. 4,
located in the South West Quarter (SW¼) of
Section 24 in
Township 13 North,
Range 10 West, N.M.P.M.,
as per location notices thereof dated October 6, 1951, and recorded in the office of the County Clerk and Ex-Officio Recorder of McKinley County, New Mexico, on October 9, 1951, in Book 3, Mining Claim Record, page 357.

Said Claims are subject to the following described royalties, to wit:

Volton Tietjen	3%,
J. T. Hutton	3%,
Fidel and Rouse, Incorporated	2% and
W. A. Thigpen	1%.

WITNESS our hands and seals this 24 day of March, 1956.

Glenn D. Williams

Edith A. Williams

STATE OF NEW MEXICO)
) ss.
County of McKinley)

The foregoing instrument was acknowledged before me this 24th day of March, 1956, by Glenn D. Williams and Edith A. Williams, husband and wife.

Notary Public

My commission expires:
February 13, 1959

BOOK 7 PAGE 350

QUITCLAIM DEED

C. A. DERRYBERRY and AVIS DERRYBERRY, husband and wife, for consideration paid, quitclaim to GULF URANIUM AND DEVELOPMENT COMPANY, a corporation, and FOUR CORNERS EXPLORATION COMPANY, a copartnership composed of F. O. Manol and Irving Rapaport, the following described real estate in McKinley County, New Mexico:

STATE OF NEW MEXICO } ss.
COUNTY OF McKINLEY }
Filed for record this 26 day of March, A.D. 1956 at 10:45 o'clock A.M. and recorded in Book 7 page 350 of the records of McKinley County, New Mexico.
G. C. Hall, Clerk

Each an undivided one-half (1/2) interest in
Lode Mining Claims,
Red Rock No. 3 and
Red Rock No. 4,
located in the South West Quarter (SW¼) of
Section 24 in
Township 13 North,
Range 10 West, N.M.P.M.,
as per location notices thereof dated October 6, 1951, and recorded in the office of the County Clerk and Ex-officio Recorder of McKinley County, New Mexico, on October 9, 1951, in Book 3, Mining Claim Record, page 357.

RESERVING HOWEVER, unto the grantors a royalty of one (1%) per cent of all ore mined and sold from said claims.

In addition to the royalty herein reserved said claims are subject to the following royalties:

Volton Tietjen	3%,
J. T. Hutton	3%,
Fidel and Rouse, Incorporated	2%, and
W. A. Thigpen	1%.

In addition thereto the undivided one-half (1/2) interest of Gulf Uranium and Development Company, a corporation, is subject to a further royalty of six (6%) per cent in behalf of J. T. Hutton.

WITNESS our hands and seals this 24th day of March, 1956.

C. A. Derryberry

Avis Derryberry

STATE OF NEW MEXICO }
County of San Juan } ss.

The foregoing instrument was acknowledged before me this day of March, 1956, by C. A. DERRYBERRY and AVIS DERRYBERRY, husband and wife.

James L. Dunbar
Notary Public

My commission expires: 2/9/59

SHORT FORM QUITCLAIM DEED—New Mexico Attorney Form—Approved by State Comptroller as Standard Form Oct. 20, 1947.

QUITCLAIM DEED

VOLTON S. TIETJEN and THERESSA TIETJEN, husband and wife, for consideration paid, quitclaim to GULF URANIUM AND DEVELOPMENT COMPANY, a corporation, and FOUR CORNERS EXPLORATION COMPANY, a copartnership composed of F. O. Manol and Irving Rapaport, the following described real estate in McKinley County, New Mexico:

Each an undivided one-half (1/2) interest
in Lode Mining Claims,
Red Rock No. 3 and
Red Rock No. 4,
located in the South West Quarter (SW¼) of
Section 24 in
Township 13 North,
Range 10 West,
as per location notices thereof dated
October 6, 1951, and recorded in the
office of the County Clerk and Ex-officio
Recorder of McKinley County, New Mexico,
on October 9, 1951, in Book 3, Mining
Claim Record, page 357.

RESERVING, HOWEVER, unto the grantors a royalty of three (3%) per cent of all ore mined and sold from said claims.

WITNESS our hand s and seal s this 24 day of March, 1956

(SEAL) Volton S. Tietjen (SEAL)

(SEAL) Theressa Tietjen (SEAL)

ACKNOWLEDGMENT
INDIVIDUAL

STATE OF NEW MEXICO,
County of McKinley } ss.

On this 12 day of April 1956, before me personally appeared VOLTON S. TIETJEN and THERESSA TIETJEN, husband and wife, to me known to be the person s described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Witness my hand and seal the day and year last above written.

My commission expires Sept 17, 1958 Mrs Jane Cooper Notary Public.

ACKNOWLEDGMENT
CORPORATION

STATE OF NEW MEXICO,
County of } ss.

On this day of 19, before me personally appeared, to me personally known, who being by me duly sworn, did say that he is of, a corporation organized under the laws of the State of, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation, by authority of its board of directors, and said acknowledged said instrument to be the free act and deed of said corporation.

Witness my hand and seal the day and year last above written.

My commission expires Notary Public

STATE OF NEW MEXICO, County of McKinley, ss. I hereby certify that this instrument was filed for record on the 19th day of April, 1956, at 10:31 o'clock A. M., and duly recorded in Book 7 R.C., page 357, of the Records of Deeds of said county. This 19th day of April, A. D. 1956.

#52220

Ora Gutierrez County Clerk.

By J. Kirk Deputy.

FORM 67-3—Printed and For Sale by Valliant Printing and Publishing Co., Albuquerque, N. M.

SHORT FORM QUITCLAIM DEED—New Mexico Statutory Form—Approved by State Comptroller as Standard Form Oct. 16, 1947.

BOOK 7 PAGE 358

QUITCLAIM DEED

ALFRED HUTTON, a single man, for consideration paid, quitclaim to GULF URANIUM AND DEVELOPMENT COMPANY, a corporation, and FOUR CORNERS EXPLORATION COMPANY, a copartnership, the following described real estate composed of F. O. Manol and Irving Rapaport, McKinley County, New Mexico:

Each an undivided one-half (1/2) interest
in Lode Mining Claims,
Red Rock No. 3 and
Red Rock No. 4,
located in the South West Quarter (SW¼) of
Section 24 in
Township 13 North,
Range 10 West,
as per location notices thereof dated October 6, 1951, and recorded in the office of the County Clerk and Ex-officio Recorder of McKinley County, New Mexico, on October 9, 1951, in Book 3, Mining Claim Record, page 357.

The grantor herein has heretofore assigned to Fidel and Rouse Incorporated, a corporation, a two (2%) per cent royalty in said claims and to W. A. Thigpen a one (1%) per cent royalty in said claims. Said assignments referred to said claims as the White Cap Claims.

WITNESS my hand and seal this 24 day of March, 1956

(SEAL) Alfred Hutton (SEAL)

(SEAL) (SEAL)

ACKNOWLEDGMENT
INDIVIDUAL

STATE OF NEW MEXICO,
County of Valencia } ss.

On this 4th day of April 1956, before me personally appeared ALFRED HUTTON, a single man,

to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

Witness my hand and seal the day and year last above written.

My Commission Expires May 14 1957

Cyrus M. Rouse
Notary Public.

ACKNOWLEDGMENT
CORPORATION

STATE OF NEW MEXICO,
County of } ss.

On this day of 19, before me personally appeared, to me personally known, who being by me duly sworn, did say that he is of, a corporation organized under the laws of the State of, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation, by authority of its board of directors, and said acknowledged said instrument to be the free act and deed of said corporation.

Witness my hand and seal the day and year last above written.

My commission expires Notary Public

STATE OF NEW MEXICO, County of McKinley, ss. I hereby certify that this instrument was filed for record on the 19th day of April, 1956, at 10:32 o'clock A. M., and duly recorded in Book 7-R.C., page 358, of the Records of Deeds of said county, on this 19th day of April, A. D. 1956.

#5220

Ethel Gutierrez
County Clerk.

By [illegible]
Deputy.

FORM No. 1—Printed and For Sale by Williams Printing and Advertising Co., Albuquerque, N. M.

BOOK 7 PAGE 359

QUITCLAIM DEED

J. T. HUTTON and PARALLEE HUTTON, husband and wife, for consideration paid, quitclaim to GULF URANIUM AND DEVELOPMENT COMPANY, a corporation, and FOUR CORNERS EXPLORATION COMPANY, a copartnership composed of F. O. Manol and Irving Rapaport, the following described real estate in McKinley County, New Mexico:

Each an undivided one-half (1/2) interest in
Lode Mining Claims,
Red Rock No. 3 and
Red Rock No. 4,
located in the South West Quarter (SW¼) of
Section 24 in
Township 13 North,
Range 10 West, N.M.P.M.,
as per location notices thereof dated October 6, 1951, and recorded in the office of the County Clerk and Ex-Officio Recorder of McKinley County, New Mexico, on October 9, 1951, in Book 3, Mining Claim Record, page 357.

RESERVING, HOWEVER, unto the grantors a royalty of three (3%) per cent of all ore mined and sold from said claims and a further royalty of six (6%) per cent on the one-half interest of Gulf Uranium and Development Company, a corporation.

WITNESS our hand s and seal s this 24 day of March, 1956

(SEAL) J. T. Hutton (SEAL)

(SEAL) Parallee Hutton (SEAL)

ACKNOWLEDGMENT
INDIVIDUAL

STATE OF NEW MEXICO,
County of McKinley } ss.

On this 24 day of March, 1956, before me personally appeared J. T. HUTTON and PARALLEE HUTTON, husband and wife, to me personally known to be the person s described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Witness my hand and seal the day and year last above written.

My commission expires 2/9/59

James L. Harper
Notary Public.

ACKNOWLEDGMENT
CORPORATION

STATE OF NEW MEXICO,
County of ..... } ss.

On this ..... day of ..... 19..., before me personally appeared ....., to me personally known, who being by me duly sworn, did say that he is ..... of ....., a corporation organized under the laws of the State of ....., and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation, by authority of its board of directors, and said ..... acknowledged said instrument to be the free act and deed of said corporation.

Witness my hand and seal the day and year last above written.

My commission expires ..... Notary Public

STATE OF NEW MEXICO, County of McKinley, ss. I hereby certify that this instrument was filed for record on the 19th day of April, 1956, at 10:33 o'clock A.M., and duly recorded in Book 7-a.c., page 359, of the Records of Deeds of said county. This 19th day of April, A. D. 1956.

#5 32232

Mary Montoya
County Clerk.

By ..... Deputy.

BOOK 7 PAGE 362

RECEIVED
MAY 2 - 1956

QUITCLAIM DEED

GLENN D. WILLIAMS and EDITH A. WILLIAMS, husband and wife, for consideration paid, quitclaim to FOUR CORNERS EXPLORATION COMPANY, a copartnership composed of F. O. Manol and Irving Rapaport, the following described real estate in McKinley County, New Mexico:

An undivided one-half (1/2) interest in
Lode Mining Claims,
Red Rock No. 3 and
Red Rock No. 4,
located in the South West Quarter (SW¼) of
Section 24 in
Township 13 North,
Range 10 West, N.M.P.M.,
as per location notices thereof dated October 6, 1951, and recorded in the office of the County Clerk and Ex-Officio Recorder of McKinley County, New Mexico, on October 9, 1951, in Book 3, Mining Claim Record, page 357.

Said Claims are subject to the following described royalties, to wit:

Volton Tietjen	3%,
J. T. Hutton	3%,
Fidel and Rouse, Incorporated	2% and
W. A. Thigpen	1%.

WITNESS our hands and seals this 24 day of March, 1956.

Glenn D. Williams

Edith A. Williams

STATE OF NEW MEXICO)
) ss.
County of McKinley)

The foregoing instrument was acknowledged before me this 24th day of March, 1956, by Glenn D. Williams and Edith A. Williams, husband and wife.

Notary Public

My commission expires:
February 23, 1959

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

RECEIVED
JUN 1 5 1955

224 New Customhouse
Denver 2, Colorado

June 9, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA assistance (Uranium), Four Corners Exploration Company and Glen D. Williams, McKinley County, N. M.

Enclosed are the original and two copies of the subject application to explore for uranium at an estimated cost of $63,050.62.

One copy of the application has been retained in this office.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
JUN 1 3 1955

224 New Customhouse
Denver 2, Colorado

June 9, 1955

Mr. Irving Rapaport
Four Corners Exploration Company
P. O. Box 101
Grants, New Mexico

Re: Application for DMEA assistance (Uranium)
Four Corners Exploration Company and
Glen D. Williams, McKinley County, N. M.

Dear Mr. Rapaport:

Your application for Government aid in the exploration of the Red Rock claims has been received and transmitted to our Washington DMEA office for processing.

We have made a sufficient number of photostat copies of the Operating Agreement and are returning the original to you.

Very truly yours,

W. M. TRAVER

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

Enclosure

RDB:pw

cc: Subject
Chron
Sec.Op.Comm. (2)
Harshman

UTAH | COLORADO
ARIZONA | NEW MEXICO

Four Corners Exploration Company

P. O. BOX 101 GRANTS, NEW MEXICO

IRVING RAPAPORT
F. G. MANOL

DMEA
Date Rec'd.
JUN 8 1955
BUREAU OF MINES
Denver, Colorado

June 4, 1955

Executive Officer
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Dear Sir:

Enclosed are four (4) copies of an apprlication for D.M.E.A. aid on the Red Rock Claims Numbers 3 and 4 in the Grants District.

A copy of our agreement with Mr. Glenn Williams, the lessee and one of the locators of the above claims, is also included. All terms of this agreement have been complied with and the Four Corners Exploration is in possession of a 50% interest in the property. Kindly return the agreement when you have finished with it as it is our sole copy.

We hope that this application meets with your approval and that drilling on these claims results in the discovery of significant uranium deposits.

Yours truly,

I. Rapaport

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Date Rec'd JUN 8 1955

RECEIVED
JUN 13 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. 385-H
Metal or Mineral Uranium
Date Received 6/13/55
Estimated Cost $63,050.62
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: Four Corners Exploration Company - Box 116, Grants, N.M. and Glenn D. Williams - 818 South Puerco St., Gallup, N.M.

(*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 Red Rock Claims #3 & #4, 41.2 acres. Section 24, Township 13 North, Range 10 West, McKinley County, N.M.

(*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 Lessees

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

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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Book 10, page 256, McKinley County Recorder's Office, N.M.

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 60 days and be completed within 10 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)? Yes

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

☐ Money ☑ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated May 26, 1955

Four Corners Exploration Co. and Glenn D. Williams
(Applicant)

By Irving Rapaport

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

UTAH | COLORADO
ARIZONA | NEW MEXICO

Four Corners Exploration Company

P. O. BOX 101 GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

May 25, 1955

D.M.E.A. APPLICATION - RED ROCK CLAIMS #3 & #4, Section 24, Township 13 North, Range 10 West, Grants District, N.M..

1. b) This property is held under a joint venture, organized in New Mexico, in which the partnership, the Four Corners Exploration Company, holds a fifty per cent interest and Mr. Glenn D. Williams holds a fifty per cent interest.

d) Four Corners Exploration Company
F.O. Manol - Box 246, Grants, N.M.
I. Rapaport - Box 116, Grants, N.M.
Glenn D. Williams - 818 South Puerco St., Gallup, N.M.

3. b) The Red Rock Claims #3 & #4.

4. a) There are no producing mines nor have there been any holes drilled on this property.

b) There has been no production from this property.

c) The topography of the southern half of these claims consists of a level plain, sloping gently to the south, which is everywhere accessible to drilling equipment. The northern three-fourths consists of a series of rounded, somewhat dissected north-trending ridges which require some access road construction. North-south and east-west roads transect the claims. (fig 2)

The average depth of hole over this ground is estimated to be 358 feet of which the uppermost 208 feet should be composed of fairly homogeneous Bluff sandstone, underlain by 150 feet of interbedded siltstone and shale of the Summerville formation, underlain in turn by approximately 30 feet of Todilto limestone. The Todilto limestone is the chief ore horizon in this region. It is suggested that holes be considered completed after drilling 5 feet into the underlying barren Entrada sandstone.

The average depth of hole being drilled in this area is now about 250 feet of which a good portion are below 400 feet. Private programs involving depths of 600 feet are being initiated.

These two claims are situated almost exactly in the center of the most productive part of the Grants District; they are surrounded by large ore bodies. To the south and southwest lie

UTAH | COLORADO
ARIZONA | NEW MEXICO

Four Corners Exploration Company

P. O. BOX 101 GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

Santa Fe's Section 25 and Hanosh Mines' Section 26; Section 25 contains proven reserves slightly in excess of 200,000 tons of which 110,000 tons is concentrated in an ore body approximately 600 feet south of the south line of these claims. The production from Santa Fe's Section 25 is not known, but several thousand tons of high grade ore are now stockpiled on the ground. Hanosh Mines' Section 26 has produced approximately $400,000 worth of ore.

The Blue Peak Mine of the Shattuck-Denn Mining Company, which has produced over $100,000 worth of ore, lies immediately north of these claims on this same section.

Santa Fe's Poison Canyon Mine, from which somewhat more than 70,000 tons have been shipped to date, lies immediately northeast of these claims. The Poison Canyon Mine is believed to be continuwith the Holly Uranium Property in Section 20 which has proven reserves of about 30,000 tons and is now being mined from a 175 foot shaft at the rate of 75 tons per day.

Southeast of these claims lie the highly productive properties of Thomas Skidmore, F.O. Manol, and the Four Corners Exploration Company. Mr. Manol has produced about $700,000 worth of ore from the property immediately to the southeast and has blocked out over one and a half million dollars worth of ore. Immediately north of this ground lies the Skidmore Claims upon which three ore bodies, one of about 100,000 tons at a grade of .36% U_3O_8, were developed. This large orebody lies about 1,600 feet southeast of the Red Rock Claims. (fig 1)

Although the holes contemplated are fairly deep, we believe this feature is more than offset by two important facts: 1) The price per foot is a minimum of fifty per cent below that generally charged on the Plateau; 2) Of the reported 15 uranium ore bodies in the United States containing in excess of 100,000 tons, three are located within a stones throw of the Red Rock #3 and #4 Claims.

d) Well travelled and maintained roads lead to the property from the Anaconda Mill at Bluewater about 16 miles to the southwest. The town of Grants which is on U.S. Highway #66 and the main line of the Santa Fe Railway, may be reached by travelling one mile east along mine road, thence 11.6 miles south on U.S. Highway #53, thence three miles southeast on U.S. Highway #66. The town of Grants is rapidly developing into a supply center for mining equipment and material. Albuquerque with a population of about 150,000 lies 80 miles east of Grants.

UTAH | COLORADO
ARIZONA | NEW MEXICO

Four Corners Exploration Company

P. O. BOX 101 GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

e) Manpower - Both skilled and unskilled mining labor is available at Grants. Mo mining camp construction is necessary.

Materials, supplies, and equipment including timber, explosives, pipe, electrictrical and ventilation equipment are available at Grants. Compressors, rock drills, hoists, and bulldozers can be purchased and repaired at equipment houses in Albuquerque.

Water - The Four Corners Exploration Co. has its own water well connected to the R.E.A. power line on adjacent property.

Power - There is an oil refinery at Prewitt, 18 miles west of the claims from which all types of fuels and lubricants may be purchased at reduced rates. The El Paso natural gas pipeline passes 9 miles south of these claims and the R.E.A. powerline is about one mile east of the Red Rock Claims.

5. b) Depth of holes were arrived at by the mapping with transit of the Bluff-Recapture contact which outcrops over the northern portion of these claims. Drill hole data from adjacent property and hand-leveled sections were employed to determine an average depth through Todilto limestone from this contact. The average dip in this area is 3° or 5 feet per 100, N 30° E. (fig 2).

Initial proposed work consists of a two hundred foot drilling grid starting one hundred feet from the south, east, and west lines of the claims and continuing to within two hundred feet of the north line of the property. The northern portion is the deepest.

The primary grid of 42 holes (fig 2) is intended to determine the location and trend of possible ore-bearing structures. We believe it probable that mineralization will be encountered on the initial grid but unlikely that ore will be found during this preliminary stage as ore bodies in this area seldom exceed one hundred feet in width. The Santa Fe ore deposit immediately south on Section 25 which contains over 100,000 tons was shown to consist of ore shoots, 25 to 125 feet wide connected by narrow stringers much like scattered beads on a string. These pods stretch out in an almost perfectly straight line and were discovered by drilling on 50 and 25 foot centers. For this reason we request an additional 42 holes for further exploration about structures and mineralization defined during the initial stage and a third stage of 21 holes whose positions will be determined by the results of the second stage. Core is requested through the limestone and five feet into the underlying Entrada sandstone in order to extract the maximum amount and the most reliable information from all holes.

The coordinates and collar elevations of all holes are to be determined with transit, all core is to be catalogued, stored, and assayed where it contains more than an estimated .05% U_3O_8, all holes are to be carefully logged and permanent records kept of both lithology amd radioactivity, and structure contour and assay maps are to be compiled from the above data.

UTAH | COLORADO
ARIZONA | NEW MEXICO

Four Corners Exploration Company

P. O. BOX 101 GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

5. d) All three applicants have been continuously engaged in mining and exploration of Todilto limestone ores for at least the past 3½ years.

Proposed Supervisor - Irving Rapaport
Employment Record

Present to May 1953 - Partner in Four Corners Exploration Co., Grants.
May 1953 to March 1952 - Superintendant Hanosh Mines, Inc., Grants.
March 1952 to May 1949 - Project Supervisor, Atomic Energy Commission, Denver and Grand Junction Branches at Grants, N.M., Marysvale, Utah, and Calamity Mesa, Colorado.
Prior to professional employment the proposed supervisor obtained a B.S. in Geological Engineering from the University of Minnesota and spent approximately two years mining for the Sunshine Mining Co., Wallace, Idaho; Climax Molybdenum Corp., Climax, Colorado; the Buckeye Mining Co., Coleraine, Minnesota; and other hard rock mining companies.

The Four Corners Exploration Company, who propose to do the drilling, have drilled about 300,000 feet of hole in the Grants District alone.

Mr. F.O. Manol has been the largest independent (exclusive of Santa Fe and Anaconda) operator in the Grants District.

Mr. Glenn Williams is also one of the large producers of this district.

6. a) Bulldozer work for each stage is estimated at ~~eight~~ ten hour days at $125.00 per day; a total of ~~1,000.00~~ per stage.

Surveying, drilling, logging, assaying, accounting, and the compilation of maps and reports are to be performed by the Four Corners Exploration Company under the price schedule included with this application.

Irving Rapaport

UTAH | COLORADO
ARIZONA | NEW MEXICO

Four Corners Exploration Company

P. O. BOX 101 GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

INITIAL 200 FOOT GRID ON THE RED ROCK #3 & #4 CLAIMS,
SECTION 24, TOWNSHIP 13 NORTH, RANGE 10 WEST, GRANTS DISTRICT, N.M.

Hole	Depth of Hole*	Hole	Depth of Hole*	Hole	Depth of Hole*
A-1	315	E-1	302	I-1	294
A-3	345	E-3	331	I-3	310
A-5	354	E-5	358	I-5	327
A-7	366	E-7	380	I-7	334
A-9	384	E-9	387	I-9	365
A-11	402	E-11	395	I-11	378
A-13	417	E-13	408	I-13	398
C-1	312	G-1	292	K-1	296
C-3	333	G-3	323	K-3	310
C-5	359	G-5	349	K-5	335
C-7	381	G-7	354	K-7	352
C-9	395	G-9	362	K-9	366
C-11	408	G-11	375	K-11	370
C-13	441	G-13	392	K-13	382

Total Feet of Hole, Proposed Stage 1 --- 15,037 feet in 42 holes.
* Bottom of hole considered as 5 foot below the base of Todilto limestone.

Cost of Stage 1 (initial 200' grid)

Depth Range	Total Feet	Price per Foot	Cost
0-100'	4,200	$ .50	$ 2,100.00
100-200	4,200	1.00	4,200.00
200-300	4,182	1.50	6,273.00
300-400	2,376	2.00	4,758.00
400-500	76	2.50	190.00
	15,037'		$17,521.00
Coring - 35' per hole.	1,470'	2.00 above base	2,940.00
	Total drilling cost ----------		$20,461.00

Average depth of hole 358.0' Drilling cost per foot $1.36

Supervision, surveying, logging, accounting, mapping, reports, core boxes, core storage, and assaying @ $.25/foot.	3,759.25
Bulldozing access roads; 8 days @ $125/day	1,000.00
TOTAL COST OF STAGE 1 ***-------	$25,220.25
Stage 2 (42 holes)	$25,220.25
Stage 3 (21 holes)	$12,610.12
TOTAL COST OF EXPLORATION	$63,050.62

RECEIVED
JUN 13 1955

AGREEMENT

THIS AGREEMENT, made and entered into on this 17th day of July, 1954, by and between GLENN D. WILLIAMS of Gallup, New Mexico, Party of the First Part, and FOUR CORNERS EXPLORATION COMPANY, a co-partnership composed of F. O. MANOL and IRVING RAPAPORT, Party of the Second Part, WITNESSETH:

For and in consideration of the promises and covenants hereinafter set forth it is agreed as follows:

1. Party of the Second Part shall enter upon claims identified as White Cap Claims Nos. 1 and 2 and 7 and 8, in Section 24, Township 13 North, Range 10 West, N.M.P.M., also known as Red Rock Claims Nos. 1 to 4 and proceed at its own expense to drill five thousand feet of test hole into the Todilto limestone, furnishing Party of the First Part full geological reports of the results of said drilling.

2. Party of the Second Part may make DMEA application for assistance on a deeper drilling program, the cost of making such application and the required contributions toward the expense of said drilling, all to be made by Party of the Second Part.

3. Party of the Second Part shall obtain at its own expense an abstract of title in respect to said claims and, if necessary, shall quiet the title of Party of the First Part to said claims at its own expense. Its obligations and rights under this contract shall commence only when title is finally approved.

4. Party of the Second Part shall be deemed the owner of an undivided one-half interest in and to said mining claims in consideration of its completion of the drilling program set forth in paragraph 1 above.

5. If commercial ore be found, the parties agree to form

an equal partnership for the mining of same or to sell or lease on such terms as they may agree upon.

IN WITNESS WHEREOF Parties have caused these presents to be executed on this 17th day of July, 1954.

Glenn D. Williams
Party of the First Part

FOUR CORNERS EXPLORATION COMPANY

By Irving Rapaport
Irving Rapaport

By F O Manol
F. O. Manol
Party of the Second Part

STATE OF NEW MEXICO)
) ss
COUNTY OF McKINLEY)

On this 17th day of July, 1954, before me personally appeared GLENN D. WILLIAMS, to me known to be the person named in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

John E Perry
Notary Public in and for McKinley County, New Mexico.

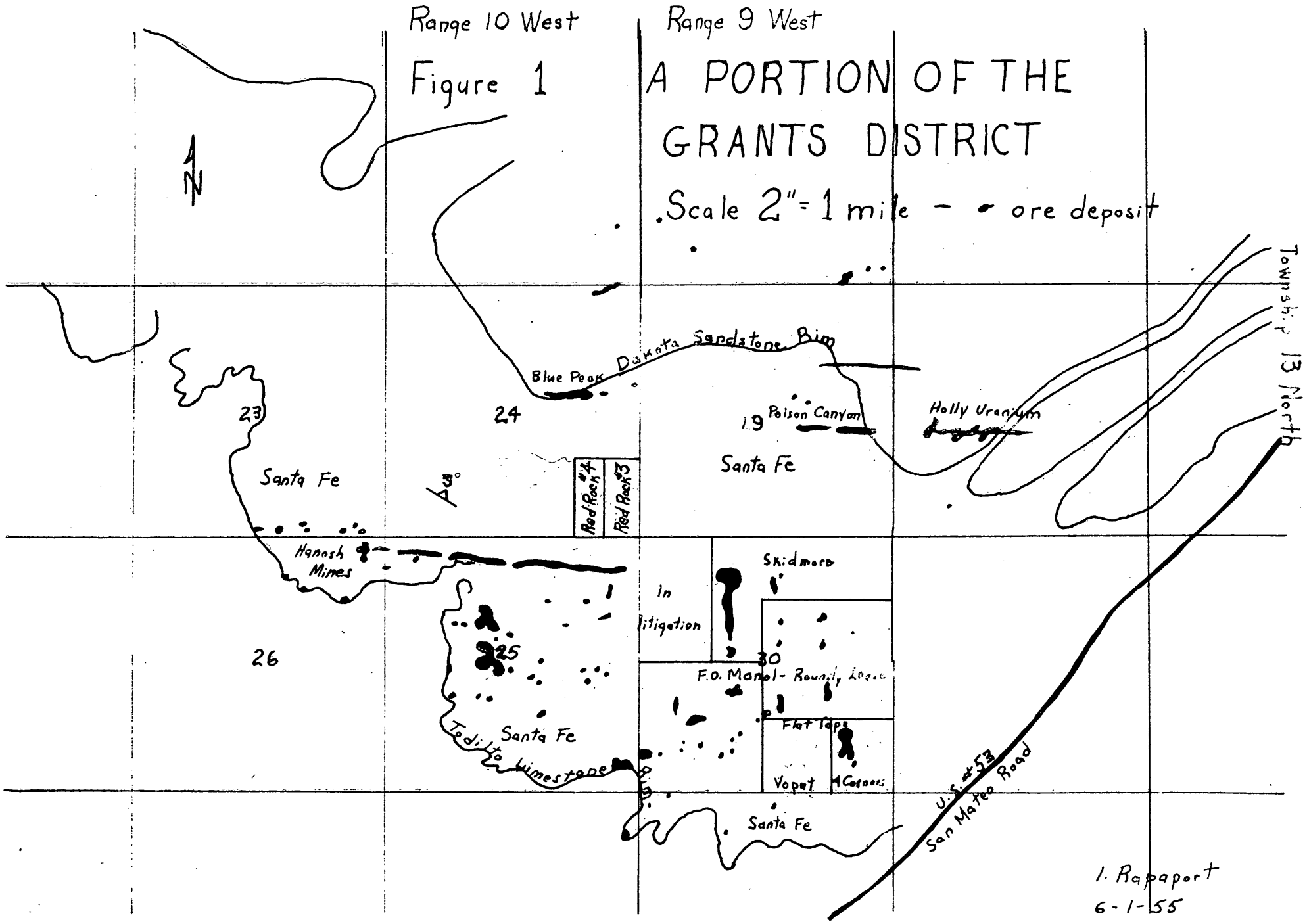
My commission expires:
December 30, 1954

STATE OF NEW MEXICO)
) ss
COUNTY OF McKINLEY)

On this 17th day of July, 1954, before me personally appeared ~~H. C. Manuel and~~ Irving Rapaport to me known to be the persons ~~described in~~ who executed the foregoing instrument in behalf of Four Corners Exploration Company ~~and who executed the foregoing instrument~~ and acknowledged that ~~they~~ executed the same as ~~their~~ free act and deed. of Four Corners Exploration Company

John E. Perry
Notary Public in and for
McKinley County, New Mexico

My commission expires:
December 30, 1954


Range 10 West
Range 9 West
Figure 1
A PORTION OF THE GRANTS DISTRICT
Scale 2" = 1 mile
ore deposit
N
Township 13 North
Dakota Sandstone Rim
Blue Peak
23
24
19
Poison Canyon
Holly Uranium
Santa Fe
Red Rock #4
Red Rock #3
Hanosh Mines
Skidmore
In litigation
26
25
30
F.O. Manol - Roundy Lease
Flat Tops
Tedilto Limestone
Vopat
McCarron
U.S. #53
San Mateo Road
I. Rapaport
6-1-55

Docket

Ching
Ellis

Project Summary Report

By: Michael Ching Date: January 31, 1958

1. Docket No. DMEA-3854 (Uranium)
   Contract No. Idm-E967

   Operator - Four Corners Exploration Company, a Copartnership composed of F. O. Manol and Irving Rapaport
   Box 116, Grants, New Mexico

   Property - Two unpatented lode mining claims, Red Rock No. 3 and Red Rock No. 4, situated in sec. 24, T. 13 N., R10 W., N.M.P.M.&B., McKinley County, New Mexico

   Operator's Property Rights - Operator and Gulf Uranium and Development Company each owns a 50 percent interest in the land. Latter company executed a Consent to Lien, dated May 25, 1956. A Subordination Agreement (undated) was signed by the following royalty holders: Volten S. and Theressa Tietjen, C. A. and Avis Derryberry, J. T. and Parallee Hutton, Fidel and Rouse, Inc., and W. A. Thigpen.

2. Contract (Short Form), dated July 17, 1956
   Final starting date - September 1, 1956
   Actual starting date - August, 1956
   Contract completion date - July 17, 1957
   Actual completion date - June, 1957

   Work Authorized - Exploration by core and non-core drilling to test the Todilto limestone of Jurassic age.

   Stage I (31 holes)

30 hrs. bulldozing @ $12.50/hr.	$375.00	
10,000 ft. non-core drilling @ $1.25/ft.	12,500.00	
1,100 ft. core drilling @ $3.90/ft.	4,290.00	
20 chemical analyses @ $3.50/each	70.00	$17,235.00

   Stage II (35 holes)

30 hrs. bulldozing @ $12.50/hr.	$375.00	
11,300 ft. non-core drilling @ $1.25/ft.	14,125.00	
1,230 ft. core drilling @ $3.90/ft.	4,797.00	
40 chemical analyses @ $3.50/each	140.00	$19,437.00

   Stage III (21 holes)

20 hrs. bulldozing @ $12.50/hr.	$250.00	
6,780 ft. non-core drilling @ $1.25/ft.	8,475.00	
740 ft. core drilling @ $3.90/ft.	2,886.00	
40 chemical analyses @ $3.50/each	140.00	$11,751.00

   Estimated Total Cost of the Project $48,424.00
   Government Participation @ 75% $36,318.00

Amendments

No. 1 - dated January 16, 1957. Increases contract completion period from 6 months to 10 months, and increases the royalty payment period from 10 years to 11 years.

No. 2 - dated April 25, 1957. Increases the contract completion period from 10 months to 12 months.

Work Completed

Stage I (31 holes)

10,872.5 ft. non-core drilling @ $1.25/ft.	$13,590.62	
890 ft. core drilling @ $3.90/ft.	3,471.00	
30 hrs. bulldozing @ $12.50/hr.	375.00	
4 chemical analyses @ $3.50/each	14.00	$17,450.62

Stage II (34 holes)

11,889 ft. non-core drilling @ $1.25/ft.	$14,861.25	
1,009 ft. core drilling @ $3.90/ft.	3,935.10	
30 hrs. bulldozing @ $12.50/hr.	375.00	
17 chemical analyses @ $3.50/each	59.50	$19,230.85

Stage III (14 holes)

5,181 ft. non-core drilling @ $1.25/ft.	$6,476.25	
386 ft. core drilling @ $3.90/ft.	1,505.40	
20 hrs. bulldozing @ $12.50/hr.	250.00	
1 chemical analysis @ $3.50/each	3.50	$8,235.15

Total Cost of the Project $44,916.62
Government Participation @ 75% $33,687.47

Final Reports Received

Operator - Undated - Received August 8, 1957
Field Team - Dated August, 1957 - Received September 9, 1957

3. Auditor's Report of Review - Dated August 9, 1957

Total Cost as Billed by Operator $45,125.27
Exceptions 208.65
Total Accepted Cost $44,916.62
Government Participation @ 75% $33,687.46

4. Certification of Discovery - None

5. Results and Comments:

The ore-bearing formation in this area is the Todilto limestone of Jurassic age. Drilling under the contract penetrated from 18 to 37 feet of Todilto limestone.

The known ore bodies in this area are very narrow elongate bodies with an east-west orientation. Since they are quite difficult to find by drilling, holes in Stage III were offset as close as 50 feet along north-south fences.

According to USGS radiometric logs about 15 mineralized and one ore hole resulted from the drilling. No significant ore bodies were discovered and a certification of discovery was not warranted.

However, from results of a Babbel probing unit and chemical analyses, the Operator reported 5 holes containing 1 foot or more of material assaying from 0.11% to 0.38% U_3O_8. Estimated ore reserves surrounding these 5 holes were 2,060 tons averaging 0.19% U_3O_8. Mining of these small scattered deposits at depths over 365 feet would be impractical. The field examiners did not attempt to explain the discrepancy between the results obtained by the USGS logging unit and those obtained by the Operator. They evidently considered the former as the more reliable.

The work was done efficiently with Failing 1500 drills. Most of the holeswere drilled dry but the use of water was necessary in a few cases.

Michael Ching

Michael Ching, Mining Engineer
Division of Rare and Miscellaneous Metals

[X] Audited

[ ] Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of Jan. 31, 1958
Incl. Voucher for June, 1957

[ ] Actual Cost

[X] Agreed Unit Costs

Name Four Corners Exploration Company

Docket No. DMEA-3854

State New Mexico

Commodity Uranium

Idm-E No. 967

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Core	3,070	11,973.00	2,285	8,911.50	8,911.50
Non-core	28,080	35,100.00	29,942.5	34,928.12	34,928.12
Surface Excavation					
Underground Excavation					
Roads and Trails		1,000.00		1,000.00	1,000.00
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Chem. Analyses		350.00		77.00	77.00
Totals		$ 48,423.00		$ 44,916.62	$ 44,916.62

Prepared by Michael Pfring

71626

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/11/58	Ching	700
"	Ellis	700
"	Chamberlin	800
	Selfridge	120
"	Johnson	110
"	Mittendorf	100
2/12		220
		700

FEB 12 1958

Messrs. F. O. Manol and
Irving Rapaport, Copartners
Four Corners Exploration Company
Box 116
Grants, New Mexico

Re: Docket No. DMEA-3854 (Uranium)
Contract No. Idm-E967
Red Rock Claims
McKinley County, New Mexico

Gentlemen:

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

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

Your interest in the DMEA exploration program and participation therein are fully appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

MChing/gla 2-11-58
cc to: Admr.'s Reading File
Contract Adm. & Audit Div.
Mr. Ching
DMEA Field Team, Region III (2)
Volten S. Tietjen and Theressa Tietjen
C. A. Derryberry and Avid Derryberry
Fidel and Rouse, Inc.
W. A. Thigpen
J. T. Hutton and Parallee Hutton
Robert K. White, President, Gulf Uranium & Development Company
El Rancho Hotel, Gallup, New Mexico

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/11/58	Ching	700
"	Ellis	700
"	Chambers	800
2/12	Selfridge	120
"	Johnson	110
"	Mittendorf	100
		220
		700

FEB 12 1958

Mr. Robert K. White, President
Gulf Uranium and Development Company
El Rancho Hotel
Gallup, New Mexico

Re: Docket No. DMEA-3854 (Uranium)
Contract No. Idm-E967
Four Corners Exploration Company
Red Rock Claims
McKinley County, New Mexico

Dear Mr. White:

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

This correspondence relates to the Consent to Lien signed by you on May 25, 1956.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

Enclosure

MChing/gla
2-11-58
cc to: Admr.'s Reading File
Contract Adm. & Audit Div.
Mr. Ching
DMEA Field Team, Region III (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/11/58	Ching	700
"	Ellis	700
.	Chandler	800
2/12	Selfridge	120
"	Johnson	110
		100
2/12	C	220
		700

FEB 12 1958

Mr. Volten S. Tietjen and
Mrs. Theressa Tietjen
Bluewater, New Mexico

Re: Docket No. DMEA-3854 (Uranium)
Contract No. Idm-E967
Four Corners Exploration Company
Red Rock Claims
McKinley County, New Mexico

Dear Mr. and Mrs. Tietjen:

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

This correspondence relates to the undated Subordination Agreement signed by you.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosure

Identical letters sent to:
C. A. Derryberry and Avid Derryberry, c/o J. T. Hutton, Farmington, New Mexico
Fidel and Rouse, Inc., Grants, New Mexico
W. A. Thigpen, Grants, New Mexico
J. T. Hutton, Farmington, New Mexico
and Parallee Hutton

MChing/gla 2-11-58
cc to: Admr.'s Reading File
Contract Adm. & Audit Div.
Mr. Ching
DMEA Field Team, Region III (2)

8623

ADO
MEXICO

Four Corners Exploration Company

P. O. BOX 116 GRANTS, NEW MEXICO

G RAPAPORT
REST FINCHER

February 6, 1958

3854

2/11 C 220 700

Ernest Wm. Ellis, Director
Division of Rare amd Miscellaneous Metals
U.S. Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D.C.

Dear Sir:

In reply to your letter of January 31, 1958 the last known address our files indicate for the persons mentioned are:

Voltan S. Tietjen
Bluewater, New Mexico

C.A. Derryberry
Farmington, New Mexico
(I am not sure of the above address; Mr. Derryberry may be contacted through Mr. J.T. Hutton)

Fidel and Rouse, Inc.
Grants, New Mexico

W.A. Thigpen
Grants, New Mexico

J.T. Hutton
Farmington, New Mexico

Yours truly,
Irving Rapaport

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/31/58	Ching	700
"	Ellis	700
"	Hutchenlop	700
1/31	C	220
/		700

JAN 31 1958

Mr. Irving Rapaport
Four Corners Exploration Company
Box 118
Grants, New Mexico

Re: Docket No. DMEA-3854 (Uranium)
Contract No. Idm-E967
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Rapaport:

In the process of closing out the subject contract it is necessary that we secure the addresses of the following signers of a Subordination Agreement:

Volten S. Tietjen
C. A. Derryberry
Fidel and Rouse, Inc.
W. A. Thigpen
J. T. Hutton

It will be greatly appreciated if you will supply us with these addresses so that the Government's lien on the property may be terminated.

Sincerely yours,

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

MChing/gla
1-31-58
cc: Admr.'s Reading File
Mr. Ching
DMEA Field Team, Region III (2)

8623

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 19 1957
DATE | INITIALS | CODE
9/19 | C | 220
11 | | 700

IN REPLY REFER TO:

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

September 17, 1957
Re: DMEA 3854 Idm-E967
Four Corners Exploration Company
Red Rock claims
McKinley County, New Mexico
Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Final Report

The contract, awarded July 1956, sanctioned the expenditure of $48,424.00, 75% to be provided by DMEA and 25% by the applicant, on the exploration of 2 claims in the southeast 1/4 of Sec. 24, T. 13 N., R. 10 W. The 2-claim group is immediately east of the 4-claim Divide Group of the same operator which was drilled under contract Idm-E1000 at a cost of $30,238.95. No ore was found in the 4-claim group.

The drill holes in both cases searched for ore in the Jurassic Todilto limestone, a formation in which numerous orebodies have been found, north and south of the claims. The claims are less than a mile west of the Poison Canyon mine in which the ore is found in the Poison Canyon unit of the Morrison formation.

Of the 79 Stage I, II & III holes drilled under the contract, one is classed as an ore hole, 2.5 feet of 0.146% eU_3O_8. Eleven holes are classed as mineralized and 67 are barren.

The drilling totalled:-

Non-core	27,942.5 feet at $1.25/ft.
Core	2,285.0 feet at $3.90/ft.

With incidentals (bulldozing and analyses) the total cost is $44,916.62 of which at 75% the Government share is $33,687.47.

As no ore is indicated, the examiners and Field Team recommend that no certification be made.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY
D M E A
RECEIVED Sep 16 1957

DATE	INITIALS	CODE
9-17	C	220
"		700

B M
RECEIVED SE
DATE

September 16, 1957

3854
Idm-E907
Uranium
Four Corners Exploration Co.
Red Rock Nos. 3 and 4 claims
McKinley County, New Mexico
$44,916.62

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee
From: James Paone, Bureau of Mines Member
Uranium Commodity Committee
Subject: Final Report

1. Date of grant 8/1957 2. Date of report 9/12/57

3. Prior report [illegible]

4. Prior [illegible]

5. Prior [illegible]

6. Grant [illegible]

7. Exploration [illegible]

8. Performed and [illegible]
a. [illegible]
b. [illegible]
c. [illegible]
d. [illegible]

9. Action [illegible]
a. Grant [illegible]
b. [illegible]
c. Deny
d. Agree [illegible] x

10. [illegible]

No certification recommended.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

ORIGINAL FILE COPY
DMEA
RECEIVED SEP 9 1957
DATE | INITIALS | CODE
9/9 | C | 220
4 | FEJ | 130
130-13
220
9-16 | Ching

September 5, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 3854 (Uranium), Contract No. Idm-E967, Four Corners Exploration Company (Red Rock Nos. 3 and 4 claims, Sec. 24, T 13 N, R 10 W., N.M. P.M.), McKinley County, New Mexico - FINAL REPORT

Enclosed are the original and two copies of the Joint Final Engineering and Geologic Report, dated August 1957, by Fred R. Shawe, Geologist, Geological Survey, and W. D. McMillan, Mining Engineer, Bureau of Mines; and transmittal thereof, dated August 28, 1957, from J. William Hasler, pertaining to work completed under the subject contract.

The original and one copy of the Operator's final report were forwarded by memorandum of August 6, 1957.

Final payment to the Operator was processed by this office August 9, 1957 in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, DMEA, dated August 9, 1957.

Acceptable units of work or service completed under the contract consisted of the use of 80 bulldozer hours in preparation of access roads and drill sites, the drilling of 79 holes aggregating 27,942.5 feet of non-core drilling and 2,285 feet of core drilling, and the chemical analysis of 22 samples to determine U_3O_8 content; all at a total accepted cost of $44,916.62, toward which the Government contributed 75%, or an amount of $33,687.46.

The work completed on a three-stage basis did not result in the discovery or development of a significant quantity

FINAL FT. REPORT

Reviewed by
DMEA OPERATING COMMITTEE
9-13-57

of uranium ore; therefore, the issuing of a Certification of Discovery or Development, as provided for in the contract, is not recommended.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 360
Grand Junction, Colorado

IN REPLY REFER TO:

DMEA
PARTMENT OF THE INTERIOR
AUG 30 1957
REGION III
DENVER, COLORADO

MINERALS
DMEA
RECEIVED
AUG 29 1957
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

August 28, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman EMH

From: J. William Hasler

Subject: Transmittal of final engineering and geologic report, DMEA docket No. 3854, contract Idm-E 967, (Uranium) Four Corners Exploration Company, Red Rock Nos. 3 and 4 claims, Sec. 24, T. 13 N., R. 10 W., NMPM, McKinley County, New Mexico.

Enclosed are 10 copies of joint final engineering and geologic report on the above-referenced contract. This report was prepared by Fred R. Shawe, U. S. Geological Survey, and W. D. McMillan, U S. Bureau of Mines.

Figures 1 and 2 are attached to the reports.

J. William Hasler

J. William Hasler,
Geologist

JWH/mlr

Enclosures
Reports w/ figs. 1 & 2 (10)

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 9 1957

DATE	INITIALS	CODE
		130 JHB
		220

Reviewed by
DMEA OPERATING COMMITTEE
9-13-57
(date)

OK Hmc

DMEA
DEPARTMENT OF THE INTERIOR
AUG 30 1957
REGION III
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT OF EXAMINING TEAM
REGION III

DMEA 3854

Contract Idm-E 967

Four Corners Exploration Company

Red Rock Nos. 3 and 4 claims

Sec. 24, T. 13 N., R. 10 W., NMPM

McKinley County, New Mexico

Uranium

Joint Final Engineering and Geologic Report

by

Fred R. Shawe
Geological Survey

W. D. McMillan
Bureau of Mines

August 1957

Reviewed by
DMEA GEOLOGIC [illegible]
9-13-57
(Date)

DMEA 3854 CONTRACT Idm-E 967
FOUR CORNERS EXPLORATION COMPANY
RED ROCK NOS. 3 AND 4 CLAIMS
SEC. 24, T. 13 N., R. 10 W., NMPM
McKINLEY COUNTY, NEW MEXICO

CONTENTS

Final Engineering and Geologic Report

	Page
Introduction and Summary	1
Location and Accessibility	2
History, Production, and Ownership	2
Geology	3
Ore Deposits	5
Work Completed Under the Contract	6
Expenditures Under the Contract	7
Summary of Unit Costs	7
Efficiency of Operations	8
Conclusions and Recommendations	8

ILLUSTRATIONS

Figure	Follows page
1. Index map of the northwest part of New Mexico, showing the location of Red Rock group of claims, Four Corners Exploration Co., McKinley County, N.M.	14
2. Claim map of the Red Rock group, showing location of DMEA drill holes, Four Corners Exploration Co., SE¼, sec. 24, T. 13 N., R. 10 W., NMPM, McKinley County, N.M.	14

TABLES

Number	Page
I. Summary data on holes drilled	9
II. Classification drill holes, Four Corners Exploration Co., Red Rock group, McKinley County, New Mexico	12

DMEA 3854
CONTRACT Idm-E 967
FOUR CORNERS EXPLORATION COMPANY
RED ROCK NOS. 3 and 4 CLAIMS
SEC. 24, T. 13 N., R. 10 W. NMPM
McKINLEY COUNTY, NEW MEXICO

INTRODUCTION AND SUMMARY

Four Corners Exploration Company, P. O. Box 116, Grants, N. M. applied to the Defense Minerals Exploration Administration on May 26, 1955, for assistance in an exploration project on their Red Rock Nos. 3 and 4 claims, in the southeast corner of sec. 24, T. 13 N., R. 10 W., NMPM, McKinley County, New Mexico. The applicant proposed to explore the Jurassic Todilto limestone for uranium ore by a three-stage drilling program consisting of 105 holes at an estimated cost of $63,052.62.

Large uranium ore deposits in the Todilto limestone to the south, east and west, and east of the property and five holes drilled by the applicant encountered favorable thickness in the Todilto limestone, and uranium mineralization in three holes (fig. 2).

The Region III examining team recommended 101 holes with 36,371 feet of core and non-core drilling at an estimated total cost of $57,283.13. The contract provided for 28,080 feet of non-core drilling and 3,110 feet of core drilling at a total cost of $48,424.00. Government participation at 75 percent, $36,318.00.

No significant uranium ore bodies were discovered, and it is recommended that the project be terminated without a Certificate of Discovery (Tables I and II).

LOCATION AND ACCESSIBILITY

The Red Rock Nos. 3 and 4 claims are unpatented 600-feet by 1,500-feet claims in the extreme southeast corner of sec. 24, T. 13 N., R. 10 W., NMPM, McKinley County, N. M. (figs. 1 and 2).

The surface dips gently to the southwest (about 80 feet in 1,500 feet) and the formations dip at about the same slope to the northeast.

A fair access road traverses the southern end of the claims from whence it is 16 miles to Anaconda Company's Blue Water Mill and about the same distance to Grants, N. M.

Altitudes at the property vary from 6,940 feet to 7,020 feet. Annual rainfall is light, and the country is classed as semi-arid. Mining operations can be maintained throughout the year.

Timber, suitable for mining use, can be obtained from northern New Mexico. Water is available from a company well about 2 miles from the claims. Labor, supplies, and light equipment can be obtained in Grants, and heavy equipment from Albuquerque, 76 miles further east.

HISTORY, PRODUCTION, AND OWNERSHIP

Prospecting for uranium became of interest following the introduction of the Government's buying schedule in 1948. A major discovery was made near Haystack Butte, about 6 miles west of the claims, in 1950, and since that time prospecting in the area has been active. Red Rock Nos. 3 and 4 claims were located on October 6, 1951 by C. A. Berryberry and were recorded on October 9, 1951.

These claims, together with the other Red Rock claims and the Saddle group were transferred to Glen D. Williams on January 28, 1952.

An agreement made by Glen D. Williams on July 17, 1954 provided for the transfer of a one-half interest in the White Cap claims Nos. 1, 2, 7, and 8 and the Red Rock claims Nos. 1, 2, 3, and 4 to the Four Corners Exploration Company on condition that this company drill at least 5,000 feet of test holes.

GEOLOGY

The Red Rock group of claims is on the northeast flank of the Zuni uplift in an area of gently dipping sedimentary rocks. The sedimentary rocks have a general strike of about N. 65°W. and dip 3° to 5° northeasterly. Four formations are exposed in the general area of the claim group; they are, from oldest to youngest, the Entrada sandstone, the Todilto limestone, the Summerville formation, and the Bluff sandstone. All four formations are late Jurassic in age.

The Entrada sandstone, a coarse- to fine-grained sandstone, is exposed on the claims only in the bottom 5 to 10 feet of the drill holes.

The Todilto limestone overlies the Entrada sandstone and is the main uranium ore-bearing horizon in this general area, and consequently the object of the exploration program. On the subject property it is also exposed only in the drill holes. Drill holes penetrated from 18 to 37 feet of Todilto limestone, however, the thickness would average about 24.6 feet.

The lower part is a thin-bedded silty limestone; the middle part is a thin-bedded, deformed limestone with a sort of crinkley bedding; the upper part is a more massive limestone. Locally these three types of bedding are called the "Platy", "Crinkley", and "Massive" units. All three lithologies were not always present in every hole, and the thicknesses of the individual units vary considerably from one drill hole to another.

The Summerville formation, consisting of about 150 feet of interbedded red-brown siltstone and fine- to very fine-grained white sandstone, overlies the Todilto limestone with a gradational contact. About 150 feet of Bluff sandstone overlies the Summerville formation. The Bluff sandstone is almost entirely a buff-colored fine-to very fine-grained well sorted sandstone.

The general structure of the area is one of a gentle northeasterly dipping monocline, which in the area of the Red Rock group of claims, is near the edge of the northeast flank of the Zuni uplift. Superimposed on the monocline are many long, narrow, and asymmetrical anticlines, the origin of which is unknown. The anticlines may involve folding of: (1) the Todilto limestone only; (2) the Todilto limestone and a few beds of the overlying Summerville formation and/or the underlying Entrada sandstone; or (3) individual beds of Todilto limestone with no expression in the adjacent limestone beds. The folds may be very narrow and abrupt; folds of an amplitude of 5 to 10 feet and a width of 15 to 25 feet are common. Strike length of these anticlines ranges from 75 to 2,000 or 3,000 feet. Most of the

Todilto ore deposits in the Grants area are localized along the crests of these anticlines.

ORE DEPOSITS

The ore deposits are usually localized near the axis of the sharp folds in the Todilto limestone. The limestone adjacent to and replaced by the ore deposits appears to have been recrystalized, which resulted in an increase of grain size and permeability of the limestone. The close spacial association of ore with the more permeable recrystalized limestone suggests the possibility that the recrystalization may have occurred prior to ore deposition, and was, therefore, effective in preparing favorable areas within the Todilto limestone for ore deposition. Regardless of the origin, the fact remains that the distribution of ore deposits in the Todilto limestone appears to be related to small anticlinal folds where the limestone has been extensively recrystalized, and this feature has been one of the main guides to ore.

The basal siltstone and sandstone of the overlying Summerville formation is usually red to red-brown. However, where the underlying Todilto limestone contains ore deposits, these red sediments have commonly been altered to a gray-green color. This alteration, when present, provides a good target for exploration drilling since it usually has a larger area than the associated ore deposit. In some instances, the alteration halo appears to widen on the gently dipping limb of the anticlinal fold which contains the ore deposit.

Extensive drilling to date indicates that the Todilto ore deposits may be associated more with small anticlinal folds that are in broad synclinal areas than those that are in broad anticlinal areas or in flat-lying areas.

In summary, the Todilto ore deposits are very narrow elongate bodies which are quite difficult to discover by drilling. However, many of these deposits contain significant amounts of uranium and are constantly being investigated.

Exploration was deemed justifiable because the applicant's claims were located in an area where the discovery of significant uranium reserves appeared promising. There were no uranium deposits known to occur on the Red Rock group of claims; however, several uranium deposits on adjacent properties were known. The ore deposits seemed to be elongate parallel to two fracture systems which trend northerly and westerly, and the chances of finding ore associated with this trend appeared fairly good. Therefore, recommendation for an exploration program was made by the examining team.

WORK COMPLETED UNDER THE CONTRACT

The three-stage project consisted of 27,942.5 feet of non-core drilling and 2,285 feet of core drilling. Details are given by Stages in Table No. I, and the hole locations are shown on figure 2.

EXPENDITURES UNDER THE CONTRACT

Expenditures by stages are as follows:

Stage I

10,872.5 feet of non-core drilling at $1.25/ft.	$13,590.62	
890.0 feet of core drilling at $3.90/ft.	3,471.00	
30 hrs. of bulldozing at $12.50/hr.	375.00	
4 chemical analyses at $3.50/ea.	14.00	
Total Stage I		$17,450.62

Stage II

11,889.0 feet of non-core drilling at $1.25/ft.	$14,861.25	
1,009.0 feet of core drilling at $3.90/ft.	3,935.10	
30 hrs. of bulldozing at $12.50/hr.	375.00	
17 chemical analyses at $3.50/ea.	59.50	
Total Stage II		$19,230.85

Stage III

5,181 feet of non-core drilling at $1.25/ft.	$ 6,476.25	
386 feet of core drilling at $3.90/ft.	1,505.40	
20 hrs. bulldozing at $12.50/hr.	250.00	
1 chemical analysis at $3.50/ea.	3.50	
Total Stage III		$ 8,235.15

Total cost of project	$44,916.62
Government participation at 75 percent	$33,687.47

SUMMARY OF UNIT COSTS

Non-core drilling	- $1.25/ft.
Core drilling	- 3.90/ft.
Bulldozing	- 12.50/hr.
Chemical analyses	3.50/ea.

EFFICIENCY OF OPERATIONS

The Failing drill operators were highly competent under the close supervision of Irving Rappaport and Forest Fincher of Four Corners Exploration Company.

CONCLUSIONS AND RECOMMENDATIONS

The project did not result in the discovery of significant uranium ore bodies.

It is recommended that the project be terminated without a Certificate of Discovery.

TABLE NO. I

Summary Data on Holes Drilled

Stage I

Hole No.	Plug	Core	Depth	MINERALIZATION Babbel Value	Chemical
J-3	277	28	305	Trace	
J-1	263	29	292	"	
J-5	309	26	335	"	
H-3	275	36	311	"	
D-3	307	28	335	"	
F-3	299	28	327	0 to .03	
B-3	317.5	30	347.5	Trace	
B-5	342	28	370	Nil	
B-7	352	41	393	Trace	
D-7	368	33	401	"	
F-7	356	30	386	0 to .03	
F-5	335	37	372	0 to .03	
J-7	329	25	354	0 to .04	
J-9	345	22.5	367.5	0 to .05	
J-11	356	40	396	.04 to .12	376.5-377.5 0.117%
J-13	390	39	429	Trace	
H-5	321	26	347	0 to .02	
H-7	338	30	368	Trace	
H-9	345	30	375	0 to .05	
H-11	366	30	396	Trace	
H-13	383	31	414	"	
F-9	367	26	393	.06 to .21	375-375.6 0.226% 387-388 0.272% 388-388.5 0.017%
F-11	373	27	400	Trace	
F-13	400	25	425	"	
D-5	345	29	374	"	
D-9	392	29	421	"	
D-11	396	26	422	0 to .04	
D-13	426	27	453	Trace	
B-9	376	30	406	0 to .03	
B-11	405	26	431	Trace	
B-13	419	31	450	Nil	
Total Stage I	10,872.5	923.5	11,796.0		

Note -- 33.5 feet of core drilling disallowed because some holes were drilled in excess of 5 feet below the Todilto-Entrada contact.

TABLE NO. I (continued)

Stage II

Hole No.	Plug	Core	Depth	MINERALIZATION Babbel Value	Chemical
A-2	287	29	316	0 to .02	
C-2	297	28.5	325.5	0 to .04	
C-4	324	26	350	0 to .02	342.6-343.0 0.179%
C-7	359	36	395	0 to .04	390.5-390.8 0.206%
C-8	377	35	412	Hole caved	399.2-401.2 0.07%
C-10	404	26	430	0 to .02	
D-6	357	42	399	0 to .02	
D-8	386	31	417	0 to .10	
E-2	294	25	319	0	
E-4	328	28	356	0	
E-6	349	35	384	0 to .03	378-378.3 0.076%
E-7	365	30	395	0 to .05	392-392.4 0.184%
E-8	378	26	404	0	
E-9	370	36	406	0 to .37	387.3-390.0 0.222%
E-10	385	29	414	0 to .01	404.5-404.6 0.098%
E-12	403	25	428	0 to .01	420.5-420.8 0.004%
F-8	354	29	383	0 to .02	
G-4	310	38	348	0	
G-6	345	19	364	0 to .02	357-357.4 0.114%
G-8	357	25	382	0 to .03	372-372.5 0.033%
G-9	354	42	396	0 to .02	
G-10	360	31	391	0 to .02	375-376 0.046%
H-8	327	39	366	0 to .02	
H-10	347	38	385	0 to .05	
I-4	289	26	315	0 to .01	
I-6	329	26	355	0 to .04	
I-7	325	29	354	0	
I-8	343	22	365	0	
I-9	339	40	379	0	
I-10	366	25	391	0 to .06	

TABLE NO. I (continued)

Stage II

Hole No.	Plug	Core	Depth	MINERALIZATION Babbel Value	Chemical
I-11	365	25	390	0	
J-10	390	30	420	0 to .06	405-406 0.40%
J-12	371	25	396	0 to .03	
K-11	355	40	395	0 to .03	383.0-383.5 0.05%
Total Stage II	11,889	1,036.5	12,925.5		

Note -- 27.5 feet of core drilling disallowed because some holes were drilled in excess of 5 feet below the Todilto-Entrada contact.

Stage III

C-7.5	385	22	407	0 to .02	
D-8.5	393	30	423	0 to .03	
E-6.5	363	30	393	0	
E-7.5	383	25	408	0	
E-8.5	380	30	410	0 to .03	
E-9.5	390	23	413	0	
F-8.5	364	30	394	0 to .01	
F-9.5	376	21	397	0	
H-9.5	337	40	377	367 ft to 393.3	0.105%
I-9.5	362	26	388	0 to .05	
J-9.5	358	27	385	0	
J-10.5	363	35	398	0 to .03	
K-9.5	360	26	386	0	
K-10.5	367	26	393	0 to .02	
Total Stage III	5,181	391	5,572		

Note -- 5 feet of core drilling disallowed because four holes exceeded the footage allowed below the Todilto-Entrada contact.

TABLE No. II - Classification Drill holes, DMEA 3854, (Uranium) Contract Idm-E 967, Four Corners Exploration Company (Red Rock group), McKinley County, New Mexico

Hole No.	Classification	Equivalent thickness in feet	U_3O_8 %	Thickness of Todilto limestone
Company drilled holes				
*5A-1	Barren			25
* B-1	Mineralized	1.0	0.030	26
*1.5B-1	"	1.0	0.020	28
* D-1	"	2.0	0.020	26
* F-1	Barren			36
* H-1	"			18
Stage I				
B-3	Barren			30
B-5	"			24
B-7	"			37
B-9	"			29
*B-11	"			22
*B-13	"			21
D-3	Mineralized	1.0	0.024	26
D-5	"	1.0	0.035	27
D-7	"	1.0	0.057	28
D-9	"	2.1	0.029	27
D-11	"	1.9	0.028	22
D-13	Barren			23
F-3	"			24
F-5	"			32
F-7	"			28
F-9	Mineralized	1.0	0.038	24
F-11	Barren			25
F-13	"			21
H-3	"			32
H-5	"			22
*H-7	"			21
*H-9	"			25
*H-11	"			23
*H-13	Mineralized	2.0	0.040	28
J-1	Barren			20
J-3	"			20
J-5	"			24
J-7	Mineralized	1.5	0.040	23

TABLE NO. II (continued)

Hole No.	Classification	Equivalent U_3O_8 thickness in feet	U_3O_8 %	Thickness of Todilto limestone
J-9	Barren			18
J-11	Mineralized	5.0	0.050	20
J-13	Barren			29
Stage II				
A-2	Mineralized	1.0	0.064	--
C-2	Barren			--
C-4	"			--
C-7	"			--
C-8	"			--
C-10	"			--
D-6	"			--
D-8	"			--
E-2	"			--
E-4	"			--
E-6	Mineralized	1.3	0.024	--
E-7	Barren			--
E-8	"			--
E-9	"			--
E-10	"			--
E-12	"			--
F-8	"			--
G-4	"			--
G-6	"			--
G-8	"			18
G-9	"			31
G-10	"			27
H-8	"			36
H-10	"			20
I-4	"			--
I-6	"			23
I-7	"			22
I-8	"			18
I-9	"			28
I-10	"			20
I-11	"			21
J-10	"			22
J-12	"			18
K-11	"			18

TABLE NO. II (continued)

Stage III

Hole No.	Classification	Equivalent thickness in feet	U_3O_8 %	Thickness of Todilto limestone
C-7.5	Barren			
D-8.5	Mineralized	1.0	0.034	
E-6.5	Barren			
E-7.5	"			
*E-8.5	"			
E-9.5	"			
F-8.5	"			
F-9.5	"			
H-9.5	Ore	2.5	0.146	
I-9.5	Mineralized	1.0	0.043	
J-9.5	Barren			
J-10.5	Mineralized	1.0	0.024	
K-9.5	Barren			
K-10.5	Mineralized	1.5	0.024	

* Data furnished by applicant

All other data from U. S. Geological Survey radiometric logs by R. E. Gant.

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 3854

AUGUST 1957

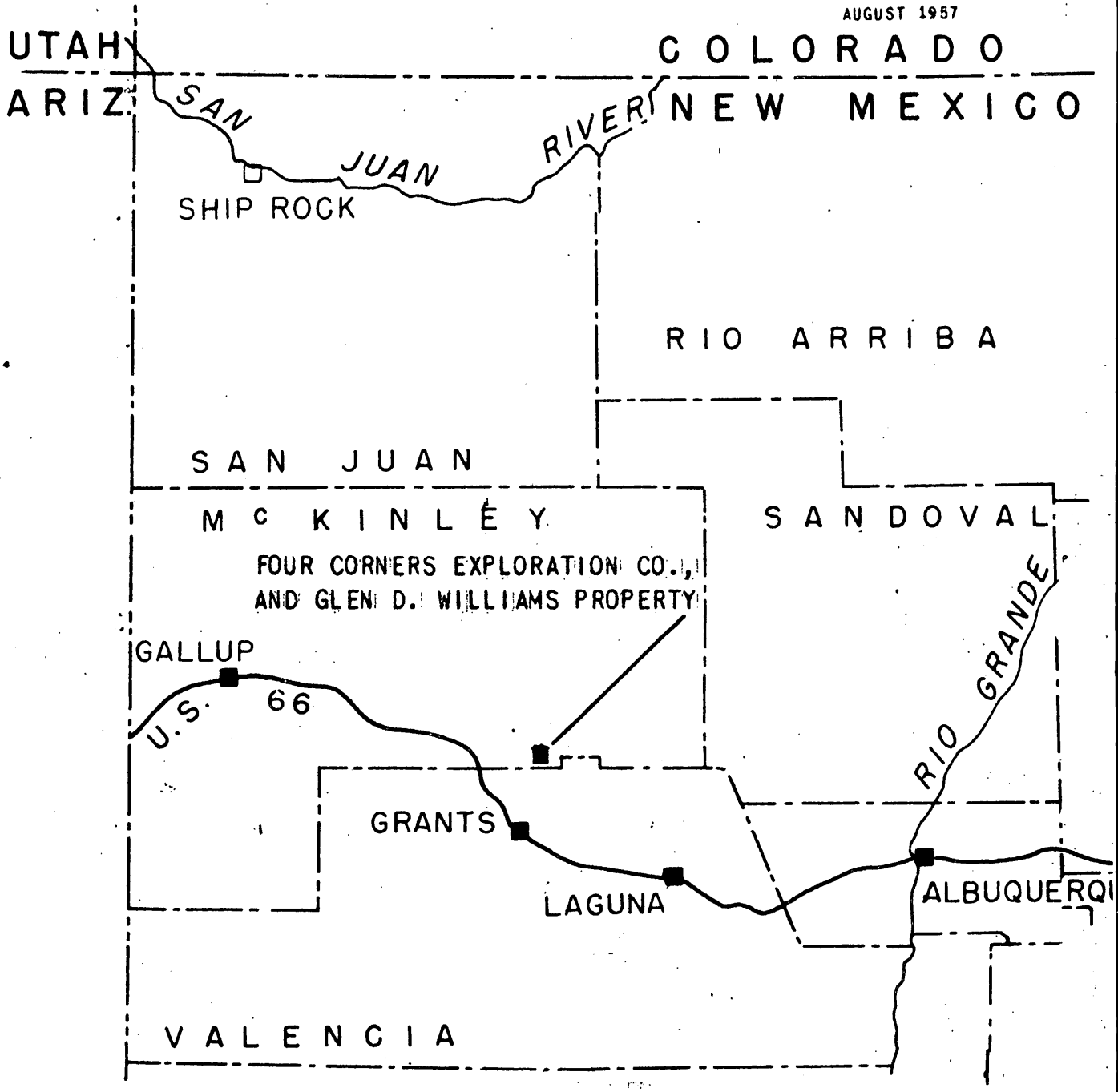
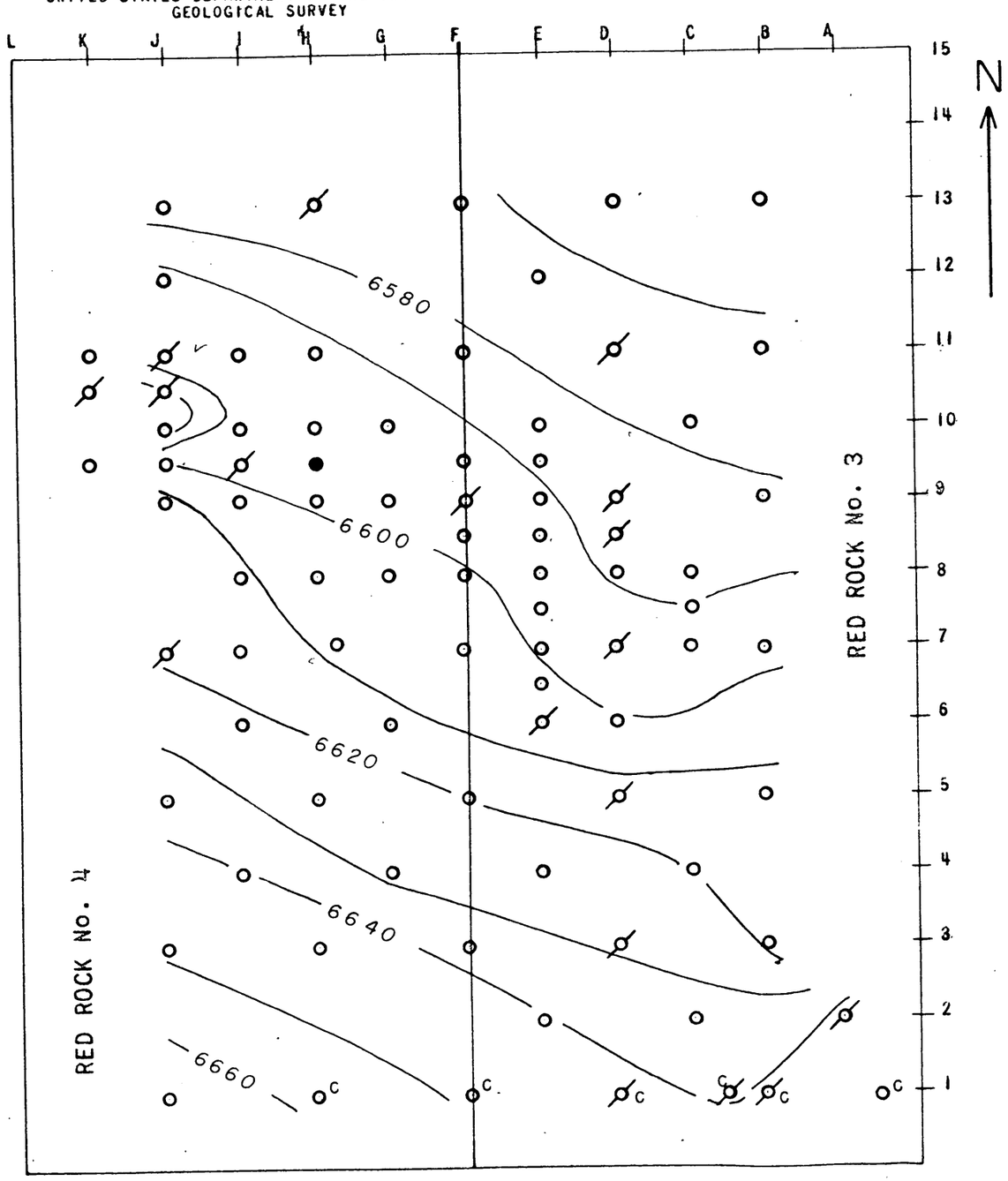


Figure 1. INDEX MAP OF NORTHWESTERN NEW MEXICO SHOWING RED ROCK NO. 3 AND 4 CLAIMS, FOUR CORNERS EXPLORATION COMPANY AND GLEN D. WILLIAMS, OWNERS, MCKINLEY COUNTY, NEW MEXICO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
AUGUST 1957 CONTRACT dm-E967 DOCKET 3854



EXPLANATION

6580 — STRUCTURE CONTOUR AT BASE OF JURASSIC TODILTO LIMESTONE. CONTOUR INTERVAL 10 FEET. DATUM IS MEAN SEA LEVEL.

CLAIM BOUNDARY

DRILL HOLES (HOLES DRILLED BY APPLICANT ARE MARKED o^c)

- o BARREN
- ø MINERALIZED, AT LEAST 1 FOOT OF 0.02 TO 0.10 PERCENT U_3O_8
- ● ORE, AT LEAST 1 FOOT OF GREATER THAN 0.10 PERCENT U_3O_8

NOTE: MAP COMPILED FROM DATA FURNISHED BY APPLICANT
more likely from results of USGS logging.
MEC.

200 0 400 FEET

Figure 2.--CLAIM MAP OF THE RED ROCK GROUP SHOWING LOCATIONS OF DMEA DRILL HOLES, FOUR CORNERS EXPLORATION COMPANY, SE¼ SEC. 24, T.13 N., R.10 W., N.M.P.M., McKINLEY COUNTY, NEW MEXICO.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

August 13, 1957

OFFICIAL FILE COPY
D M E A
RECEIVED AUG 15 1957

DATE	INITIALS	CODE
8/15	[illegible]	220
"	[illegible]	700

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3854 (Uranium) Contract Idm-E967
Four Corners Exploration Company, (Red Rock claims,
Sec. 24, T 13 N, R 10 W. NMPM) McKinley County,
New Mexico - FINAL PAYMENT

Enclosed are two copies of a memorandum to T. A. Christensen, dated August 9, 1957, relative to final payment under the terms of the subject contract.

E. N. Harshman

E. N. Harshman

Enclosures

OFFICIAL FILE COPY DMEA RECEIVED AUG 15 1957		
DATE	INITIALS	CODE

224 New Customhouse
Denver 2, Colorado

August 9, 1957

Memorandum

To: T. A. Christensen

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3954 (Uranium) Contract IdM-2967
Four Corners Exploration Company, (Red Rock claims,
Sec. 24, T 13 N, R 10 W, NMPM) McKinley County,
New Mexico - FINAL PAYMENT

Reference is made to our memorandum of July 18, 1957, whereby we transmitted the final Form MF-104, Operator's Monthly Report and Voucher, for the month of June, 1957, and requested that you withhold an amount of $500.00, pending resolution of matters prerequisite to closing the account.

The Operator's final report has been received, therefore final payment to the Operator is recommended on the following basis, which is in conformance with the Report of Review of reported project expenditures by the Contract Administration and Audit Division, DMEA, dated August 9, 1957:

Basis for Final Payment

Total accepted cost	$44,916.62
Government participation at 75%	33,687.46
Total prior payments	33,187.46
Balance due the Operator	$ 500.00

Original signed by
E. N. HARSHMAN
E. N. Harshman

JDC:bmh
cc: Chan. Op. Comm. (2)
Harshman
Hailer
DMEA/BFC
DMEA/O.Jet.
Townsend
MF-104 file, Reg. III
Corres. file, Reg. III
Chron

$500.00
NS
8/12/57 DMA 58-14

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 8 1957

DATE	INITIALS	CODE
8/9	G.K	220
8/9	[illegible]	800
"	[illegible]	700

224 New Customhouse
Denver 2, Colorado

August 6, 1957

Memorandum

To: T. H. Brading, DMEA Auditor

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3854 (Uranium), Contract No. Idm-E967, Four Corners Exploration Company (Red Rock claims, Sec. 24, T 13 N, R 10 W, N.M. P.M.), McKinley County, New Mexico

The Operator has essentially completed the work provided for under the subject contract and has rendered a final engineering and geologic report and a final accounting as required by the contract.

Therefore, final payment of the Operator's account is in order, contingent on release to this office of a Report of Review of reported project costs.

Acceptable units of work or service completed on a Fixed Unit Cost basis are as follows:

Bulldozing	80 hours
Non-core drilling	27,942.5 feet
Core drilling	2,285 feet
Chemical analysis of samples.	22

The sum of $500.00 was withheld from reimbursement to the Operator in processing the final accounting report, which was for the month of June, 1957.

Original signed by
E. N. HARSHMAN

E. N. Harshman

JWT:prl

cc: Chmn. Op. Comm. - 2
Harshman
Townsend
Corres. file
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 8 1957

DATE	INITIALS	CODE
8/8	P.K.	220
8/9	[illegible]	800
8/	Ching	700

August 6, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3854 (Uranium), Contract No. Idm-E967, Four Corners Exploration Company (Red Rock claims, Sec. 24, T 13 N, R 10 W, N.M. P.M.), McKinley County, New Mexico

Enclosed are the original and two copies of the final report submitted by the Operator, pertaining to work completed under the subject Contract.

E. N. Harshman

E. N. Harshman

Enclosures

HMC Amc

RECEIVED
AUG 5 1957
Div. of Mineral Technology
BUREAU OF MINES
Denver Experiment Station
Denver, Colorado

FOUR CORNERS EXPLORATION COMPANY
1118 MAIN STREET, GRAND JUNCTION, COLO
BOX 116, GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

DMEA
DEPARTMENT OF THE INTERIOR
AUG 5 - 1957
REGION III
DENVER, COLORADO

Mr. John F. Shaw
U.S. Bureau of Mines
Room 137, Bldg. 20
Denver Federal Center
Denver 2, Colorado

Re: Docket DMEA 3854
Contract No. E-967
Red Rock Claims 3-4

Final Report DMEA 3854

During the month of June, 1957, the last of the authorized 3rd. stage holes were bottomed thus completing the contract.

A total of 27,942.5 feet of non-core and 2,338.5 feet of core drilling were used in completing the 3 authorized stages of drilling on the Red Rock Claims. In the greater percentage of holes air was used as a circulating medium, however in several holes mud and water conditions necessitated the use of water.

Methods Employed

All holes were plugged to a point determined to be the top of the limestone with Failing 1500 drills and then cored (NX) to the bottom of the hole. Bottom was declared when several feet of what was obviously Entrada sandstone had been penetrated.

All core was boxed and stored after detailed lithologic logs were prepared on acetate.

The holes were logged with a carefully calibrated Babbel hole logging machine.

Geologic Evaluation

The results obtained by drilling the Red Rock Claims are considered favorable. A wide spread occurrence of uranium mineralization and some ore was encountered.

Two synclinal, ore localizing, structures were fairly well delineated. (See maps.)

It is considered probable that there is more ore present than indicated in the reserves presented, since the nature of many ore deposits in the limestone are such that more concentrated drilling is required to block out ore. However the depths here preclude any such drilling.

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 8 1957

DATE	INITIALS	CODE

OP's Final Report

FOUR CORNERS EXPLORATION COMPANY
1118 MAIN STREET
GRAND JUNCTION, COLO
BOX 116
GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

Ore Reserves

For the purpose of computing ore reserves, one foot of .10% U_3O_8 has been used as the cut-off, and a 25 foot zone of influence has been given the ore holes. (See Ore Reserve Map.)

All grade values are based on chemical assays. Using 12.5 cubic feet of limestone to equal 1 ton weight - 2,060 tons are indicated on average grade of .194% U_3O_8 (See Ore Reserve Map).

Forrest Fincher

Forrest Fincher
Geologist

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 22 1957

DATE	INITIALS	CODE
7/22	P.K.	220
7/22	[illegible]	800
"	~~Cheng~~	700

224 New Customhouse
Denver 2, Colorado

July 18, 1957

Mr. Irving Rapaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: Docket DMEA-3854 (Uranium)
Contract Idm-8967
Four Corners Exploration Company
(Red Rock claims, Sec. 24,
T. 13 N., R. 10 W., NMPM)
McKinley County, New Mexico

Dear Mr. Rapaport:

Form MF-104, Operator's Monthly Report and Voucher, for June, 1957, has been received in this office and is being processed for payment.

Four of the holes drilled during June, 1957 penetrated in excess of five feet below the base of the Todilto limestone, which is contrary to the contract provisions. The reported cost for the excess core drilling is disallowed as follows:

Hole No.	Penetration Below Todilto Limestone	Excess core footage
I-9.5	6 ft.	1 ft.
E-7.5	6 ft.	1 ft.
E-8.5	7 ft.	2 ft.
D-8.5	6 ft.	1 ft.
Total excess core footage		5 ft.

The amount of $500.00 which was withheld from the March 1957, voucher is reinstated, and an amount of $500.00 is withheld from the June, 1957, voucher pending resolution of matters prerequisite to closing the account, which includes the following:

1. Rendering to the Government by Four Corners Exploration Company, a final report in conformance with Article 5(c) of the contract form.

2. Release to this office of an Audit Report or Report of Review of the reported project expenditures by the Contract Administration and Audit Division, DMEA.

You will be further advised of the above deductions and reinstatement by means of an Administrative Audit Difference Statement, which will be forwarded to you by the Finance Office, Region III. If you have any questions regarding the above please feel free to contact this office.

Yours very truly,

Original signed by
W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region III

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
DMEA, DFC
DMEA, G.Jct.
Hasler
Townsend
Corres. file, Reg.III
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

July 15, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 17 1957

DATE	INITIALS	CODE
7/17	C	220
"	Cling	700

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-3854 (Uranium) Contract Idm-E967, Four Corners Exploration Company, (Red Rock claims) McKinley County, New Mexico

Docket DMEA-4363 (Uranium) Contract Idm-E1065, Lisbon Uranium Corporation, (John Brown claim group) Mesa County, Colorado

Docket DMEA-4409 (Uranium) Contract Idm-E1066, Dalmid Oil & Uranium, Inc., (April, Butte and Canyon claims) San Juan County, Utah

Docket DMEA-4411 (Uranium) Contract Idm-E1052, Treasure Uranium & Resources, Inc. (NW$\frac{1}{4}$, Sec. 6, T13N, R9W) McKinley County, New Mexico

Docket DMEA-4420 (Uranium) Contract Idm-E1056, Bleak Uranium Company, Inc. (Picolo Pete et al claims) San Juan County, Utah

Docket DMEA-4494, (Uranium) Contract Idm-E1074, New Idria Mining & Chemical Company, (Johnnie Mae claim group) Mesa County, Colorado

OFFICIAL FILE COPY
D M E A
RECEIVED JUL 17 1979

DATE	INITIALS	COPY

Docket DMEA-4631 (Uranium) Contract Idm-E1092,
Vanadium Queen Uranium Corporation (Vanadium Queen
claims) San Juan County, Utah.

W. H. King

W. H. King

Enclosures

ORIGINAL FILE COPY
DMEA
RECEIVED JUL 17 1957

DATE	[illegible]	CODE

Four Corners Exploration Co.
Red Rock 3 & 4 claims
Sec. 24, McKinley Co., N.M.
DMEA Docket No. 3854

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
C-7.5	407.0		291.0-401.0	392.4-393.6	1.2	500			.012	
				395.6-396.6	1.0	280			<.010	
D-8.5	423.0		270.0-420.0	402.6-403.9	1.3	280			<.010	
				406.1-407.3	1.2	260			<.005	
				409.9-410.9	1.0	1000			.034	
E-6.5	393.0		268.0-390.0	385.8-386.6	.8	360			<.010	
E-7.5	408.0		288.0-408.0	394.3-395.2	.9	1500			.040	
				395.2-396.1	.9	260			<.010	
E-9.5	413.0		300.0-410.0	395.3-396.6	1.3	250			<.005	
				399.7-400.8	1.1	540			.014	
F-8.5	392.0		282.0-392.0	381.9-384.0	2.1	380			<.010	
				384.0-384.8	.8	260			<.010	
F-9.5	397.0		286.0-396.0	Barren						
H-9.5	377.0		265.0-375.0	337.1-339.2	2.1	370			<.010	
				339.2-341.5	2.3	820			.019	
				341.5-342.8	1.3	420			<.010	
				342.8-343.8	1.0	900			.030	
				343.8-346.3	2.5	320			<.010	
				354.1-355.3	1.2	260			<.005	
				362.3-363.2	.9	300			<.010	
				363.2-365.4	2.2	1300			.026	
				365.4-366.5	1.1	5000			.18	
				366.5-367.9	1.4	4000			.12	
				367.9-368.9	1.0	1100			.026	

* From top to bottom depths

Four Corners Exploration Co.
Red Rock 3 & 4 claims
Sec. 24, McKinley Co., N.M.
DMEA Docket No. 3854

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
I-9.5	388.0		275.0-385.0	326.6-331.5	4.9	240			<.005	
				331.5-332.5	1.0	320			<.010	
				332.5-335.1	2.6	220			<.005	
				364.7-365.6	.9	260			<.010	
				373.6-374.6	1.0	1600			.043	
J-9.5			260.0-380.0	370.7-372.7	2.0	220			<.005	
				372.7-373.6	.9	740			.023	
				373.6-374.5	.9	260			<.010	
J-10.5	398.0		284.0-394.0	374.8-375.7	.9	240			<.005	
				386.7-387.7	1.0	760			.024	
K-9.5	386.0		248.0-378.0	373.4-374.6	1.2	320			<.010	
				374.6-375.7	1.1	220			<.005	
K-10.5	393.0		210.0-390.0	366.0-367.7	1.7	340			<.010	
				369.5-370.8	1.3	440			<.010	
				370.8-373.0	2.2	280			<.005	
				373.0-374.6	1.6	400			<.010	
				374.6-376.1	1.5	920			.024	
				376.1-378.1	2.0	240			<.005	
				378.1-379.3	1.2	700			.019	
				379.9-380.8	.9	360			<.010	

* From top to bottom depths

ORIGINAL FILE COPY
D M E A
RECEIVED JUL 17 1957

DATE	INITIALS	CODE

FINAL DISTRIBUTION
MADE JUL 25 1957

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

224 New Custom House, Denver 2, Colorado

Administrative Audit Difference Statement

Date: July 23, 1957
Payee's Reference: June 1957

DME A-3854

Four Corners Exploration Company, Inc.
Box 116
Grants, New Mexico

Gentlemen:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ 3,254.65

Difference $ 19.50

Amount Approved $ 3,235.15

The reason for the difference was due to:

Disallow the reported cost of 5 ft core drilling @ $3.90 per ft. $19.50

Reinstate $500.00 which was withheld from the March 1957 voucher.

Withhold $500.00 pending resolution of matters prerequisite to closing the acc unt.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

EXTRA COPY
DMEA
RECEIVED JUL 30 1957

DATE	INITIALS	CODE
7/24	JEJ	110
"	Chang	700

R-III-B & F Form No. 4
4-15-52 D

284 New Customhouse
Denver 2, Colorado

July 18, 1957

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3854 (Uranium) Contract Ion-2967, Four Corners Exploration Company, (Red Rock claims, Sec. 24, T. 13 N., R. 10 W., NMPM) McKinley County, New Mexico - Operator's Monthly Progress Report, for the month of June, 1957

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Except as otherwise indicated below, we consider that the Operator has complied with the intent of the contract and the work for which payment is recommended is acceptable to the Government. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore, we recommend that payment be made on the following basis, contingent on your verification of arithmetical accuracy within the report.

Under Exhibit "A", Description of the Work, the contract stipulates that the holes shall be bottomed 5 feet below Todilto limestone. Four holes penetrated in excess of 5 feet below the Todilto limestone, as follows:

Hole No.	Penetration Below Todilto Limestone	Excess core footage
I-9.5	6 ft.	1 ft.
E-7.5	6 ft.	1 ft.
E-8.5	7 ft.	2 ft.
D-8.5	6 ft.	1 ft.
Total excess core footage----------		5 ft.

Disallow the reported cost of 5 feet core drilling at $3.90 per foot ---------- $ 19.50

Reinstate the amount of $500.00 which was withheld from the March, 1957, voucher, pending performance of additional work.

Withhold an amount of $500.00 pending resolution of matters which are prerequisite to closing the account. All approved work has been completed.

Reconciliation with Amount Reported by the Operator on Form MF-104 for June, 1957

Amount reported on Form MF-104 for June, 1957		$8,254.65
Amount to be disallowed		19.50
Acceptable costs for June, 1957		$8,235.15
Government participation at 75 percent		6,176.36
Amount to be reinstated	$500.00	
Amount to be withheld	500.00	
Net deduction		0.00
Balance due the Operator		$6,176.36

Remarks

Date of Report ---------- July 6, 1957
Date Received in Field Office ---------- July 11, 1957
Date Received in Region Office ---------- July 17, 1957

Original signed by
W. H. KING
W. H. King

Enclosures

JEC:hmh
cc: Chem. Op. Comm. (2)
BMEA, BPC
MF-104 file, Reg.III
Barnhman
BMEA, G.Jct.
Hasler
Townsend
Chrem.
} w/copy of Engr's report

DMEA
DEPARTMENT OF THE INTERIOR

JUL 17 1957

REGION III
DENVER, COLORADO

REGION III

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: W. D. McMillan

Subject: DMEA Docket 3854 (Uranium) Contract Ida-8967, Four Corners Exploration Company, Red Rock claims, sec. 24, T. 13 N., R. 10 W., NMPM, McKinley County, New Mexico -- Progress report for June 1957

An inspection of progress was made on July 8, 1957, accompanied by Irving Rappaport of the subject company.

Fourteen holes with a total of 5572 feet were completed under Stage III. The distribution of drilling is shown in the following table:

Hole No.	Ping Bit feet	Core Bit feet	Total Feet	Mineralization
C-7.5	385	22	407	Nil to 0.02% U_3O_8e
D-8.5	393	30	423 + 1	" " 0.03% "
E-6.5	363	30	393	" " trace
E-7.5	383	25	408 + 1	"
E-8.5	380	30	410 + 2	" " 0.03% "
E-9.5	390	23	413	" " trace
F-8.5	364	30	394	" " 0.01% "
F-9.5	376	21	397	"
H-9.5	337	40	377	" " 0.12% "
				367-369.3 0.105% U_3O_8e
I-9.5	362	26	388 + 1	Nil to 0.85% U_3O_8e
J-9.5	358	27	385	"
J-10.5	363	35	398	" " 0.03% "
K-9.5	360	26	386	" " trace
K-10.5	367	26	393	" " 0.02% "
	5161	411	5572	

EXPIRATION DATE
RECEIVED JUL
DATE

The operator submitted an adequate narrative report, NF-104 and 104A, radiometric logs, maps showing structure contours, locations and assays of drill holes in quintuplicate, bulldozing invoice and chemical analysis invoice in triplicate, and one copy of the driller's logs.

The lithologic logs show that Holes I-9.5, D-8.5, and E-7.5 were cored in the Entrada for 6 feet, 1 foot each in excess of contract specifications of 5 feet, and that Hole E-8.5 was drilled 7 feet into the Entrada, an excess of 2 feet. Therefore, 5 feet of core drilling are disallowed. Items recommended for approval are:

5181 feet of non-core drilling at $1.25/ft.	$6476.25
386 feet of core drilling at $3.90/ft.	1505.40
20 hours of bulldozing at $12.50/hr.	250.00
1 chemical analyses at $3.50 ea.	3.50
Total approved costs	$8235.15

It is recommended that 75 percent of the approved total amounting to $6176.36 be paid.

The operator performed all work in accordance with the terms of the contract and is submitting a final report.

W. D. McMillan
Mining Engineer

WDM/mm
cc: 6
IAm-8967
chron

FOUR CORNERS EXPLORATION COMPANY
IRVING RAPAPORT
FORREST FINCHER
BOX 116
GRANTS, NEW MEXICO
TEL. AT 7-4722

NARRATIVE REPORT - RED ROCK CLAIMS SECTION 24, T13N, R10W, N.M.

Idm E-967
Docket 3854

July 6, 1957

Fourteen holes, a total of 5,572 feet, were drilled on the Red Rock Claims in June. This total is composed of 5,181 feet of non-core to the top of the limestone and 391 feet of core thru the limestone into the underlying Entrada sandstone. The average depth of hole was 398.0 feet. Core recovery averaged 97%.

All holes were probed thru the limestone with a Babbel hole logging machine, and the core was boxed and stored after detailed lithologic logs were prepared on acetate.

The drilling of the fourteen holes during June completed the third stage drilling on the Red Rock Claims. One hole, H-9.5, is classified as sub-ore, 11 holes are mineralized and 3 are barren. It can be noted on the structure contour map that the structural picture was little changed by closer spaced drilling. No narrow, sharply defined, ore-controlling troughs were discovered during stage III. drilling and the frequency and dispersion of mineralization was about the same as that of Stage II. It is possible that significant quantities of ore remain to be found on the claims but the drilling depths appear too great to merit further effort.

A final report will follow soon.

Forrest Fincher
Forrest Fincher

DRILL HOLE TABULATION CHART RED ROCK CLAIMS JUNE 1957

Hole No.	Plug	Core	Depth	From	To	Gamma Value
C-7.5	385	22	407	0	392	0
				392	393	tr
				393	396	.02
				396	398	tr
				398	405	0
D-8.5	393	30	423	0	403	0
				403	410	tr
				410	413	.03
				413	422	0
E-6.5	363	30	393	0	363	0
				363	373	tr
				373	386	0
				386	388	tr
				388	392	0
E-7.5	383	25	408	0	40[illegible]	0

EXTRA COPY
DMEA
RECEIVED JUL 29 1957
DATE | INITIALS | COPY

FOUR CORNERS EXPLORATION COMPANY
IRVING RAPAPORT
FORREST FINCHER
BOX 116
GRANTS, NEW MEXICO
TEL. AT 7-4722

Hole No.	Plug	Core	Depth	From	To	Gamma Value
L-8.5	380	30	410	0	391	0
				391	397	tr
				397	400	.03
				400	401	tr
				401	410	0
L-9.5	390	23	413	0	399	0
				399	401	tr
				401	413	0
F-8.5	364	30	394	0	372	0
				372	377	tr
				377	381	0
				381	384	.01
				384	393	0
F-9.5	376	21	397	0	397	0
H-9.5	337	40	377	0	341	0
				341	347	.02
				347	364	0
				364	367	.05
				367	369.5	.12
				369.5	371	.04
				371	377	0
I-9.5	362	26	388	0	361	0
				361	364	tr
				364	374	0
				374	375	.05
				375	376	tr
				376	386	0
J-9.5	358	27	385	0	382	0
J-10.5	363	35	398	0	387	0
				387	389	tr
				389	391	.03
				391	398	0
K-9.5	360	26	386	0	373	0
				373	375	tr
				375	381	0
K-10.5	367	26	393	0	366	0
				366	371	tr
				371	374	.02
				374	382	tr
				382	392	0
Totals	5,181'	391'	5,572'			

Chem Assay Hole H-9.5 From 367 To 369.3 .105% U_3O_8

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1957 Docket No. DMEA 3894 Contract No. Km 5-967
Operator's Name Four Corners Exploration Co. Minerals Uranium
Address Box 116, Grants, N.M.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	foot	1524.90	391	9120.15	2990.5	3.90		
~~Churn~~ Plug	foot	6476.25	5181	34920.12	27942.5	1.25		
~~Auger~~ Assay	assay	3.50	1	77.00	22	3.50		
Stripping								
Trenching								
Test Pits								
Roads and Trails Dozing	hour	250.00	20	1000.00	80	12.50		
TOTAL DISTRIBUTED COSTS		9294.65		45125.27				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 7-6-57 Operator Four Corners Exploration Co.

Per [signature] Title Owner

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

RECEIVED JUL 29 1957 D.M.E.A.

[signature]

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1957 Docket No. DMEA 3854 Contract No. 10o E-967
Operator's Name Four Corners Exploration Co. Minerals Uranium
Address Box 116, Grants, N.M.
Contract Amount, $ 48,424.00 Government Participation: 75 % Amount, $ 36,318.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Plug	6476.85	28451.07	34928.12			
Bulldozing	250.00	750.00	1000.00			
~~Crosscutting~~ Coring	1524.90	7595.25	9120.15			
~~Drifting~~ Assays	3.50	73.50	77.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	8254.65	36870.62	45125.27	8235.15	36,870.62	45,105.77
				11-	189.15	189.15
						44,916.62

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 7-6-57 *Payee Four Corners Exploration Co.

Per Greg Lafayette Title Owner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of: 36,681.47

$ 6,176.36

Signature [illegible] (Authorized Certifying Officer)

Date 7/23/57 Vou. No. DMA 58-8

(See other side)

11 Previous Deduction
Note: Withhold 500.00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E 967 in accordance with the terms of the contract.

Signature W. McMillan (8/6176.36) Title Min. Engr Date 7/15/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. S. King Title Executive Officer Date JUL 18 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

ORE ____ ____ FAV.
MIN. ✓ ____ UNFAV.
BARREN ____

FOUR CORNERS EXPLORATION CO.

HOLE NO. [illegible]

PROJECT [illegible]

LOCALITY [illegible] CLAIM [illegible]

COLLAR ELEV. [illegible] DEPTH 407

COORDINATES ____

DATE COMPLETED 6-12-51

LOGGED BY [illegible] DATE 6-13-51

RECOVERY 97.7 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]

ORE ____
MIN. ✓
BARREN ____

✓ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. [illegible]

PROJECT [illegible]

LOCALITY [illegible] CLAIM [illegible]

COLLAR ELEV. [illegible] DEPTH [illegible]

COORDINATES [illegible]

DATE COMPLETED 6-25-51

LOGGED BY [illegible] DATE 6-26-51

RECOVERY 78.8 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								[illegible]	
								[illegible]	3½
								[illegible]	
								[illegible]	
								[illegible]	15
								[illegible]	15
								[illegible]	
								Entrada	
								Lost 5' of Entrada	

ORE ____ ✓ FAV.
MIN. ✓ ____ UNFAV.
BARREN ____

FOUR CORNERS EXPLORATION CO.

HOLE NO. I-95

PROJECT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 4

COLLAR ELEV. 6977.5 DEPTH 388

COORDINATES _____ _____

DATE COMPLETED 6-20-57

LOGGED BY RPF DATE 6-21-57

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								Plug 362	360
									370
									380
									390
									400

ORE ____
MIN. ✓
BARREN ____

✓ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. H-95

PROJECT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock

COLLAR ELEV. 6970.8 DEPTH 377

COORDINATES _____ _____

DATE COMPLETED 6-19-57

LOGGED BY JPF DATE 6-20-57

RECOVERY 95.0%

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								Top 337	
340		Gy	Med	F	Hem			← gdy L.s. w/silt stringers	
		Lt Gy			Loo				15/15
350		Gy		C					
		Gy						← 350.5-351 A/vu. by CaCO3 xtals (vugs)	
360		Dk Gy	Thn						14/15
		Dk Gy		C					
		Gy	Med	F-M			4308	← "Platy" Traces 4308, 366-10367-369.3. 4308 pyrite	
370									9/10
		Rdy Gy.	THK	F				Endings	
380									

ZBIORY
CZYTELNI
JUL 29 1957
DOBRZE
ACH 64 INC

ORE ____
MIN. ____
BARREN ✓

✓ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. F-9.5

PROJECT Red Rock DH's A

LOCALITY Cow Ls. CLAIM Red Rock 4

COLLAR ELEV. 6981.7 DEPTH 397

COORDINATES _____ _____

DATE COMPLETED 6-18-57

LOGGED BY FRF DATE 6-19-57

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								TOP 376	
380		By Gn	THIC	F-M			Non Vis.	Interb. zone w/s Bn. sh.	
		By Gy	Mrd & Thn	F-M				← By C. L.S. No "Gunky"	15/15
390		Gy			A/hrm			← A/hrm at base L.S.	6/6
		Rbn Gy	THK	F				Entrance	
400									
410									

ORE ____ ✓ FAV.
MIN. ____ ____ UNFAV.
BARREN ✓

FOUR CORNERS EXPLORATION CO.

HOLE NO. E-75

PROJECT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 3

COLLAR ELEV. 6993.4 DEPTH 405

COORDINATES

DATE COMPLETED 6-14-57

LOGGED BY FRF DATE 6-17-57

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
380								Plug 383	
390		Gy Dky Gy & D. Gy	Med Thm Med	C C F-M	A/hem loc. on Fract surf.			← Traces Barite A/hem. on fract. ← "Crinkly" ← "Platy" ← Rextal. in "Platy"	15 15
400		RBy Gy						Entrada Limey Hard.	10 10
410									
420									

ORE ____ ✓ ____ FAV.
MIN. ✓ ____ ____ UNFAV.
BARREN ____

FOUR CORNERS EXPLORATION CO.

HOLE NO. E-85

PROJECT Red Rock DHLA

LOCALITY Grants CLAIM Red Rock 3

COLLAR ELEV. 6991.7 DEPTH 410

COORDINATES _____ _____

DATE COMPLETED 6-14-57

LOGGED BY FRF DATE 6-15-57

RECOVERY 86.7%

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								Plug 380	
380		Gy	THK	C	Hem			← Moss. L.S	
		Gy D.Gy	Thn	C	Al loc.			← "crinkly"	
								← "Platy"	
390		Gy	Mod	F-M				S/Rect. in "Platy"	19/15
		&	THK					395-397.5	
		D.						Bk streaks	
		Gy						on MnO2 in	
								L.S. Albrm	
400								399.5-398	
		Gy	THK	F				Entrada	12/5
								lost 2½' core	
								in Entrada	
410									

ORE ____
MIN. ✓
BARREN ____

✓ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. E-6.5

PROJECT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 3

COLLAR ELEV. 6991.2 DEPTH 393

COORDINATES _____

DATE COMPLETED 6-18-57

LOGGED BY FRF DATE 6-18-57

RECOVERY 93.3 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
									360
								Plug 363	
		Gy L. Gy	Med	F	S/Hem		None Vis.	Silty L.S.	370
				C	A/Loc. on			← ABR MNO2 ← A/hem crack ← "Cinky" ← "Plug"	
		Gy Dgy	Thn	C	Frack				380
		Gy & D. Gy	Med	F-M					
									390
		By	THE	F				F-Tock	
									400

ORE ____ ✓ FAV.
MIN. ✓ ____ UNFAV.
BARREN ____

FOUR CORNERS EXPLORATION CO.

CO HOLE NO. D-8-5

PROJECT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 3

COLLAR ELEV. 7006.0 DEPTH 423

COORDINATES _____

DATE COMPLETED 6-12-57

LOGGED BY FRF DATE 6-13-57

RECOVERY 96.6 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
390					Hem			Play 393'	
		Gy & L.Gy	THK	C VC	Loc.			Mass. C 1.5 w/h BK & Amber $CaCO_3$ xtals. ← Thick "crinkly"	
400		D.Gy	Thn	C					
		Gy & D.Gy	Med. & THK	F-M					15 15
410								Rext, in "Platy"	
							430	BK CPX-½-3oot	19
420		Rsh Gy	THK	F				Entrada	15
430									

ORE ____ ✓ FAV.
MIN. ✓ ____ UNFAV.
BARREN ____

FOUR CORNERS EXPLORATION CO.

HOLE NO. F-85

PROJECT Red Rock DDH A

LOCALITY Grants CLAIM Redlands

COLLAR ELEV. 6985.7 DEPTH 394

COORDINATES _____

DATE COMPLETED 6-19-57

LOGGED BY FRF DATE 6-20-57

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
360									
								Plug 364	
		Gy L. Gy	Med	C F	Tr. Hem		None Vis.	Silty L.S. ← "Crinkly"	11
370		Gy D. Gy	Thin	C				← "Muddy" carbon Plates	11
		Gy & D. Gy	Thin & Med	F-M				← Platy	
380								3/R + 1/1 "Platy"	10
									10
390									9
		Rbn Gy	Thk	F				Entrada	9
400									

ORE ___
MIN. ✓
BARREN ___

___✓ FAV.
___ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. E-25

PROJECT Project DNEA Red Rock

LOCALITY Grants CLAIM Red Rock 3

COLLAR ELEV. 6988.4 DEPTH 413

COORDINATES _____ _____

DATE COMPLETED 6-18-57

LOGGED BY FRF DATE 6-19-57

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
390								Plug 390	
		Gy Bn	THC	F-C	Hem			← silty a.s.	
		Dk Gy	Thk	C	Loc.		None vis.	← "Gritty"	
		Gy	Med	F-M				← Plaly.	15
400									15
								slight Red. in Plaly	
									8/8
410		Rbn Gy	THC	F					
420									

ORE ____ ____ FAV.
MIN. ____ ✓ UNFAV.
BARREN ✓

FOUR CORNERS EXPLORATION CO.

HOLE NO. J-95

PROJECT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 4

COLLAR ELEV. 6984.1 DEPTH 385

COORDINATES

DATE COMPLETED 6-22-57

LOGGED BY FRF DATE 6-22-57

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								Plug 358'	
360		Gy	Mrs	C	S/Tn			← S/ xtals CaCO3	6/6
		D.Gy			Hem on Fract		Hem	← Crinkly poorly defined	
		Gy	Thn	F-M			Vis	← Platy/s Rext.	
370								← S/Hem vert Fract	15 15
380								Entrada	
390									
400									

ORE ____
MIN. ✓
BARREN ____

✓ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. J 1[illegible]5

PROJECT [illegible]

LOCALITY [illegible] CLAIM [illegible]

COLLAR ELEV. 6985.3 DEPTH 398

COORDINATES

DATE COMPLETED 6-21-57

LOGGED BY [illegible] DATE 6-22-57

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
									10
									15

ORE ____
MIN. ____
BARREN ____

____ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. [illegible]

PROJECT [illegible]

LOCALITY [illegible] CLAIM [illegible]

COLLAR ELEV. 6784.5 DEPTH 3[illegible]3

COORDINATES

DATE COMPLETED 6-24-5[illegible]

LOGGED BY [illegible] DATE 6-25-5[illegible]

RECOVERY [illegible] %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	
		[illegible]			Tr.				
		[illegible]	[illegible]						
		Gy	THR						

RECEIVED
JUL 29 1957
D.M.E.A.

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

May 13, 1957

Memorandum

To: Hazel Berry, Operating Committee

From: Irene Z. Mainster, Rare & Misc. Metals Div.

Subject: Amendment to Contract

Mr. Ching has reviewed and approved Amendment No. 2 to Contract No. Idm-E967, dated April 25, 1957, Docket No. DMEA-3854, Four Corners Exploration Company. He has also indicated that no further review of the amendment is required by the Legal Division.

/s/ Irene Z. Mainster

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

May 2, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3854 (Uranium), Contract No. Idm-E967, Four Corners Exploration Company (Red Rock claims), McKinley County, New Mexico

Enclosed are the original and two copies of Amendment No. 2 to Contract No. Idm-E967, which has been executed to extend the period for completion of the work from ten months to twelve months from the date of the Contract.

Also enclosed are four copies of the Operator's letter requesting the extension of the completion period.

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

ORIGINAL FILE COPY
DMEA
RECEIVED MAY 6 1957

DATE	INITIALS	CODE
5/6	C	220
	esf	130
		700

FOUR CORNERS EXPLORATION COMPANY
BOX 116
GRANTS, NEW MEXICO

G RAPAPORT
ORREST FINCHER

TEL. AT 7-4722

[illegible]

DMEA
DEPARTMENT OF THE INTERIOR
APR 22 1957
REGION III
DENVER, COLORADO

Mr. [illegible] Harrison
[illegible] Executive Officer
[illegible], Region III

Dear Mr. Harrison,

We have completed the [illegible] of drilling on the [illegible] claims we have submitted for [illegible] exploration. Since we have not met [illegible] we are [illegible] on our payroll, we request that the completion date be extended [illegible] core drill [illegible] be started.

Sincerely yours,

Forrest Fincher

Forrest Fincher

ORIGINAL FILE COPY
DMEA
RECEIVED MAY 6 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

May 8, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3854 (Uranium), Contract No. Idm-E967
Four Corners Exploration Company (Red Rock claims)
McKinley County, New Mexico

Enclosed are four copies of confirmation of project work approval issued by the DMEA Field Team, Region III, pertaining to drilling under Stage III of the contract.

Also enclosed are two copies of the Operator's letter of March 30, 1957, with attachment, constituting request for approval of the work, and four copies of a memorandum dated April 6, 1957, from Howard F. Albee, Geologist, Geological Survey, relative to the work to be approved.

Copies of the confirmation of work approval have been distributed to the Operator, Finance Office, Region III, and to others concerned.

E. N. Harshman

Encls.

E. N. Harshman

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 13 1957

DATE	INITIALS	CODE
5-13	C	220
5-14	Chrg	700

1 set, less Apr's. proposal Mar. 30, 1957, + tndp "Red Rock #4", sent to USGS. 5/13/57

OFFICIAL FILE COPY
D M E A
RECEIVED MAY 13 1957
DATE | INITIALS | CODE

294 New Customhouse
Denver 2, Colorado

May 8, 1957

Mr. Irving Rapaport
Four Corners Exploration Co.
Box 116
Grants, New Mexico

Re: Docket No. DMEA-3854 (Uranium)
Contract No. 14m-E967
Four Corners Exploration Company
(Red Rock claims) McKinley Co., N.M.

Dear Mr. Rapaport:

In reference to the request from Mr. Forrest Fischer, dated March 30, 1957, for the Government's approval for drilling under Stage III of the contract, this confirms verbal approval issued by the Government on May 6, 1957, to drill the following listed fourteen holes:

Coordinate Location of Approved Hole	
E-10.5	E-9.5
E- 9.5	E-8.5
J-10.5	E-7.5
F- 9.5	E-6.5
E- 9.5	D-8.5
F- 9.5	I-9.5
F- 8.5	C-7.5

The locations of the above-listed holes are indicated on the map, "Figure 1. - Map Showing Red Rock Nos. 3 and 4 Claims, Previously Drilled Holes, and Location of Proposed Stage III Drill Holes, Four Corners Exploration Co., and Glen D. Williams, McKinley County, New Mexico," which is attached hereto and made a part of this confirmation of work approval.

The Government will not contribute to the cost of an incompleted hole; therefore, if insufficient footage remains to complete an approved hole to its objective, the hole shall not be started.

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

Very truly yours,

DMEA Field Team, Region III

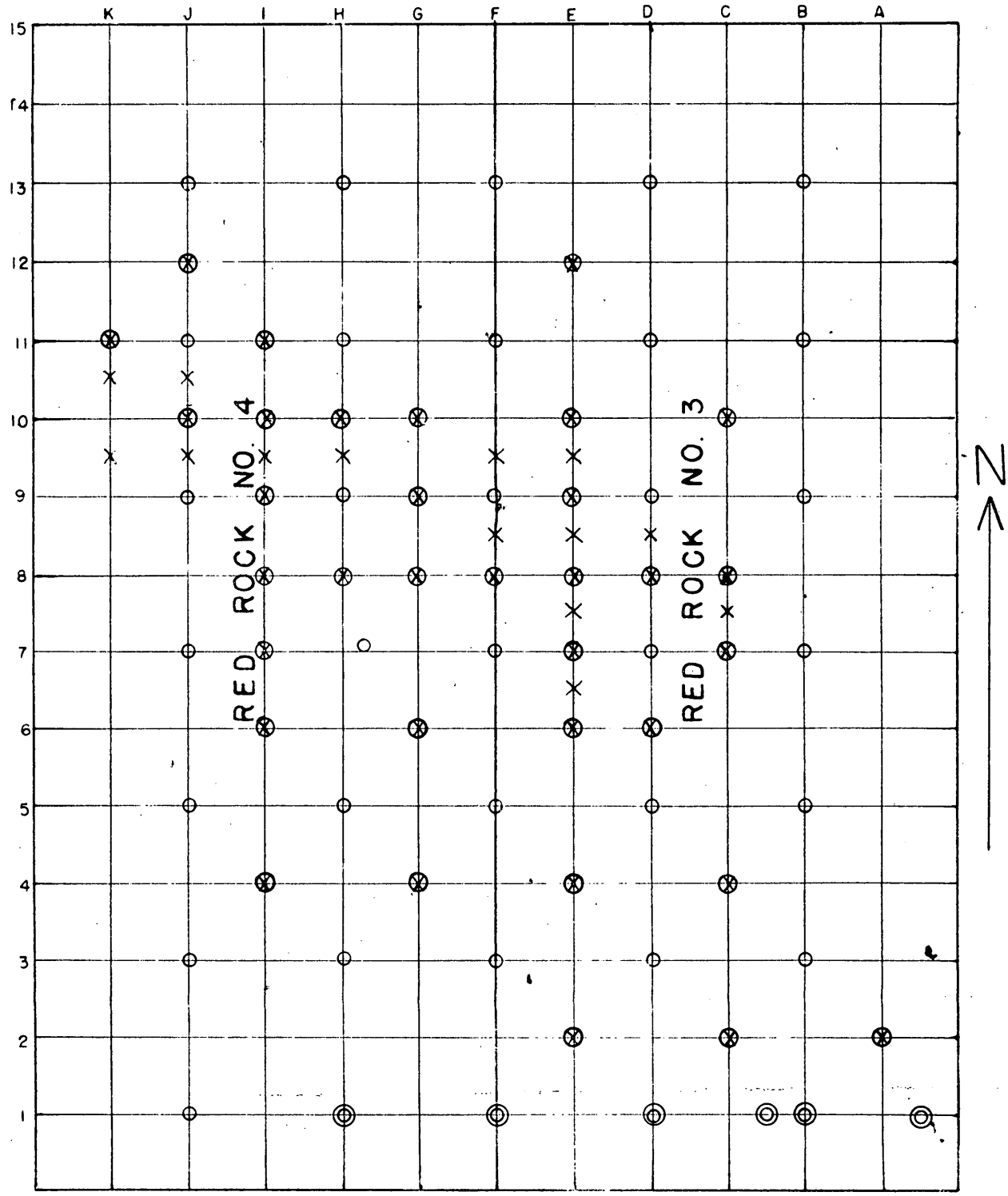
E. N. Harshman

By E. N. Harshman,
Acting Executive Officer

JWT:bh
co-Chairman, Op. Comm. (4)
Finance Office, Region III
Amendment File, Region III
Harshman
Konselman (2)
Kesler
Townsend
Corres. File E-967
Chron.

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
MAY 1957 Contract idm-E967 DOCKET 3854



100 0 300 FEET

EXPLANATION

- ◎ HOLES DRILLED BY APPLICANT
- ○ LOCATION OF STAGE I DRILL HOLE
- ⊗ LOCATION OF STAGE II DRILL HOLE
- × LOCATION OF PROPOSED STAGE III DRILL HOLE

FIGURE 1.--MAP SHOWING RED ROCK NOS. 3 AND 4 CLAIMS, PREVIOUSLY DRILLED HOLES, AND LOCATION OF PROPOSED STAGE III DRILL HOLES, FOUR CORNERS EXPLORATION CO., AND GLEN D. WILLIAMS, McKINLEY COUNTY, NEW MEXICO.

Mr. William Trover
Executive Officer
DMEA Field Team

DMEA
DEPARTMENT OF THE INTERIOR
APR 4 - 1957
REGION II
DENVER, COLORADO

Dear Mr. Trover,

Enclosed you will find, in quintuplicate, our proposal for stage III drilling of the Red Rock Claims, Inv - 3967, Docket 3934.

Sincerely yours,

Forrest Fincher

Forrest Fincher

One copy of proposal and map has been sent to Mr. Hoskins at Grand Junction

IRVING RAPAPORT
FORREST FINCHER

FOUR CORNERS EXPLORATION COMPANY
BOX 116
GRANTS, NEW MEXICO

TEL. AT 7-4722

DMEA
DEPARTMENT OF THE INTERIOR
APR 4 - 1957
REGION III
DENVER, COLORADO

March 30, 1957
[illegible] - [illegible]67
[illegible] - 3[illegible]4

Proposed Third Stage - Red Rock Claims

First and second stage drilling of the Red Rock claims has established the presence of ore locally, and the broad uranium mineralization. This drilling has also shown the presence of the favorable open verge with which uranium ore bodies, in the Todilto limestone, are invariably associated.

It may be noticed on the accompanying map that there is a band of [illegible] mineralized a tremendous [illegible] by 5. [illegible] from holes [illegible] - 11 to holes C - 7 and C - 8, a distance of nearly [illegible] feet. Within this band there are one hole, four out-ore holes and numerous well mineralized holes.

It is thought that the situation is now similar to the one faced by the Santa Fe Mining Co. in their exploration on the adjacent Lease. 25, since their discovery of a 100,000 ton plus ore body was accomplished by a fault by drilling 100 foot holes on 50 foot centers. This was necessary because the ore body, which lies [illegible] 3,000 feet long, is extremely narrow and consists of a series of closely spaced ore pods orientated northerly along the major east-west trend. Between these pods only [illegible] areas and some mineralization exist.

Holes E - [illegible] and F - 9 are 100 feet apart in an east-west direction and contain respectively [illegible] sub-ore. It is thought possible that they may be on the edge of an ore body of this type (see map).

From previous drill hole results it is known that there is ore present on the Red Rock claims and it is thought possible that further exploration by drilling on 50 foot centers may serve to locate or establish the trend of a significant ore body.

Therefore, it is proposed that the remaining stage three footage, 6,[illegible].5 feet, be used in the drilling of 14 holes located on the basis of strong uranium mineralization, and favorable structure, established by previous drilling (see map).

Forrest Fincher

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
MAY 6 1957
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O. Box 360
Grand Junction, Colorado

DMEA
DEPARTMENT OF THE INTERIOR
MAY 8 - 1957
REGION III
DENVER, COLORADO

April 6, 1957

Memorandum

To: Acting Executive Officer, DMEA Field Team, Region III

Through: J. William Hasler JWH
E. N. Harshman EMH
A. S. Konselman ASK

From: Howard F. Albee

Subject: Request for stage III, docket No. DMEA 3854 (Uranium), contract No. Idm-E 967, Four Corners E ploration Company (Red Rock claims), McKinley County, New Mexico

The above captioned operator has requested approval to drill 14 stage III holes at the following proposed locations (fig. 1).

K-10.5	E-9.5
K- 9.5	E-8.5
J-10.5	E-7.5
J-9.5	E-6.5
H- 9.5	D-8.5
F- 9.5	C-8.5 I-9.5
F-8.5	C-7.5

Previous drilling has defined two areas of downwarped Todilto strata on the claims and assay results show the best holes to be on or near these structures. Nearly all significantly mineralized Todilto limestone has been found associated with synclinal structures.

The proposed stage III holes are located in two groups around the areas of downwarped strata and, with one exception, are recommended for approval. The proposed hole at C-8.5 should be deleted and a hole at I-9.5 should be drilled.

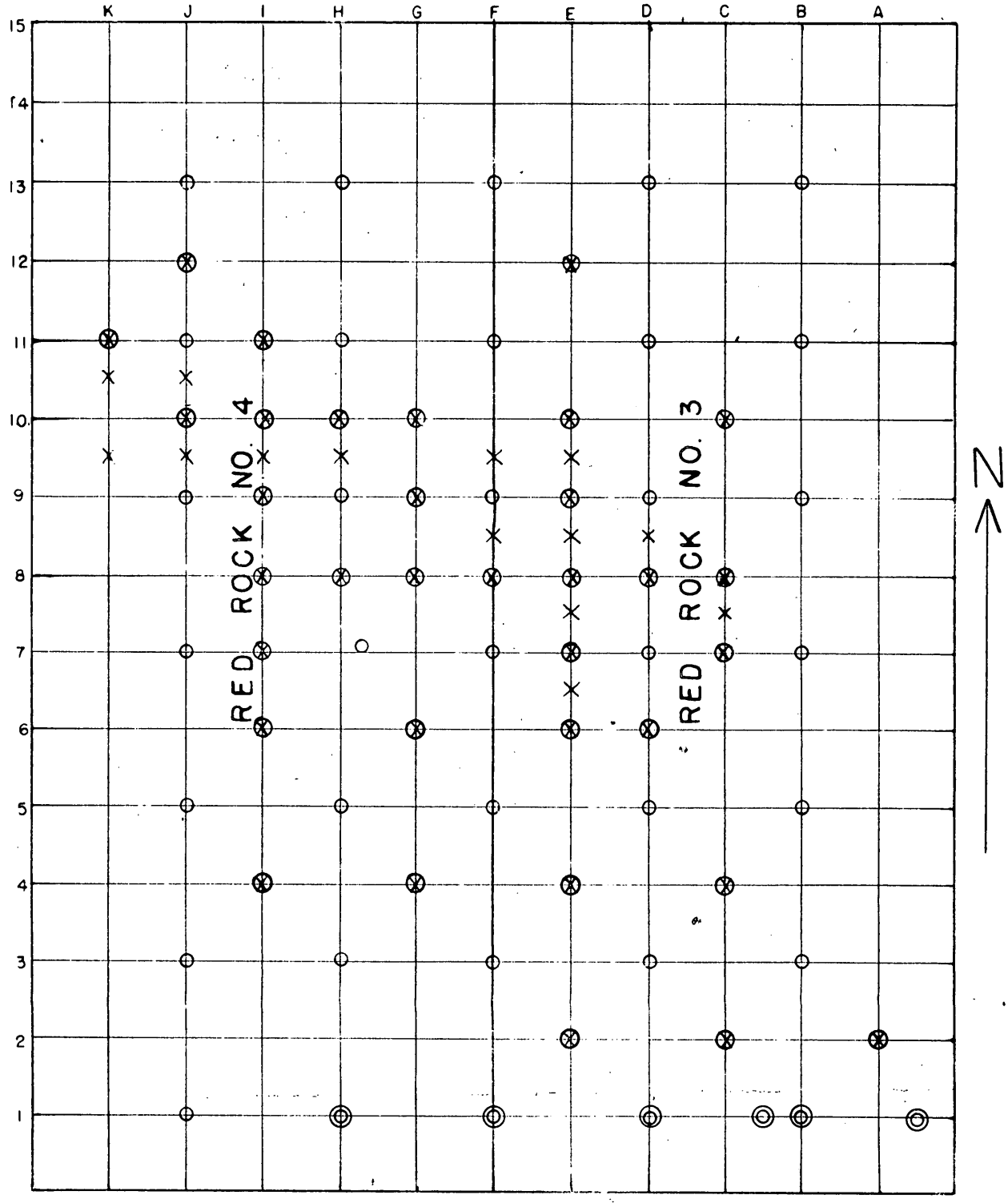
Howard F. Albee
Howard F. Albee, Geologist
U.S. Geological Survey

HFA/mlr

Enclosures
Fig. 1 - 24 copies

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
MAY 1957 Contract idm-E967 DOCKET 3854



100 0 300 FEET

EXPLANATION

- ◎ HOLES DRILLED BY APPLICANT
- ○ LOCATION OF STAGE I DRILL HOLE
- ⊗ LOCATION OF STAGE II DRILL HOLE
- × LOCATION OF PROPOSED STAGE III DRILL HOLE

FIGURE 1.--MAP SHOWING RED ROCK NOS. 3 AND 4 CLAIMS, PREVIOUSLY DRILLED HOLES, AND LOCATION OF PROPOSED STAGE III DRILL HOLES, FOUR CORNERS EXPLORATION CO., AND GLEN D. WILLIAMS, McKINLEY COUNTY, NEW MEXICO.

DMA Ops Contractors
Denver 2, Colorado

May 2, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting 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-3034 (Uranium) Contract Ida-3449,
Genesee Uranium Mines of Canada, Inc.,
(Peanut group) Montrose County, Colorado

Docket DMEA-3054 (Uranium) Contract Ida-3947,
Four Corners Exploration Company, (Red Rock claims)
McKinley County, New Mexico

Docket DMEA-3091 (Uranium) Contract Ida-41064
Green Uranium Company (Last Resource claim group)
San Miguel County, Colorado

Docket DMEA-4073 (Uranium) Contract Ida-957,
Hamilton oil and Simpson Mining Company
(Lemmy Mae group) Grand County, Utah and
Mesa County, Colorado

Docket DMEA-4136 (Uranium) Contract Ida-3995,
Union Mines, Inc., (Ruth K. and Sylvia claims)
Montrose County, Colorado

Docket DMEA-4392 (Uranium) Contract Ida-43050,
Walter Duncan Mining Company (Mackey element and
Mackey mine) San Juan County, Utah.

EXTRA COPY
DMEA
RECEIVED MAY 6 1957

DATE	INITIALS	CODE
5-6	[illegible]	700

Project [illegible]-4420 (Uranium) Contract [illegible]-[illegible],
Black Mountain Company, Inc. (Placer Pete [illegible] al.
claims) San Juan County, Utah.

Original signed by
E. N. HARSHMAN
E. N. Harshman

Enclosures

JHC:bls

cc: Carson. Files: [illegible], [illegible], [illegible], [illegible],
[illegible], [illegible], [illegible]

Harshman
Kunzhman (2)
Carson.

EXTRA COPY
DMEA
RECEIVED MAY 6 1957
DATE | INITIALS | CODE

Four Corners Exploration Co.
Red Rock 3 & 4 claims
McKinley Co., New Mexico
DMEA Docket No. 3854

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
A-2	316.0		154.0-314.0	284.8-286.7	1.9	350			< .010	
				297.0-298.2	1.2	220			< .005	
				307.0-308.0	1.0	2200			.064	
				308.0-309.1	1.1	240			< .005	
				309.1-309.6	.5	2300			.12	
C-2	325.5		204.0-324.0	316.9-318.0	1.1	580			.015	
C-4	350.0		229.0-349.0	325.5-327.2	1.7	210			< .005	
				340.8-342.0	1.2	240			< .005	
				342.0-343.6	1.6	600			.013	
				343.6-344.4	.8	280			< .010	
C-7	395.0		283.0-393.0	384.5-385.7	1.2	440			.010	
				385.7-387.9	2.2	220			< .005	
				387.9-388.6	.7	1800			.063	
C-8	412.0		308.0-408.0	392.8-394.1	1.3	220			< .005	
				395.8-397.3	1.5	260			< .005	
				397.3-398.0	.7	2200			.081	
				398.0-399.2	1.2	280			< .010	
C-10	430.0		306.0-426.0	415.8-416.4	.6	1500			.057	
				416.4-417.6	1.2	400			< .010	
D-6	399.0		273.0-393.0	351.3-352.9	1.6	220			< .005	
				352.9-354.5	1.6	260			< .005	
				354.5-355.6	1.1	600			.016	
				355.6-357.3	1.7	330			< .010	
				357.3-359.1	1.8	480			< .010	

* From top to bottom depths

Four Corners Exploration Co. & Williams
Red Rock 3 & 4 claims
McKinley Co., New Mexico
DMEA Docket No. 3854

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
D-6 (con't)				359.3-360.2	.9	520			.015	
				360.2-361.5	1.3	220			<.005	
				361.5-362.5	1.0	400			<.010	
				373.0-373.9	.9	260			<.010	
				379.5-380.4	.9	630			.019	
D-8	417.0		264.0-414.0	402.2-405.9	3.7	320			<.010	
				405.9-406.5	.6	1900			.08	
E-2	319.0		169.0-319.0		Barren					
E-4	356.0		156.0-356.0	170.4-171.1	.7	300			<.010	
				326.5-327.3	.8	240			<.010	
				347.3-348.0	.7	250			<.010	
				348.7-350.0	1.3	250			<.005	
E-6	384.0		234.0-384.0	359.5-560.4	.9	240			<.005	
				361.2-362.2	1.0	300			<.010	
				364.7-366.1	1.4	320			<.010	
				367.8-368.5	.7	310			<.010	
				378.1-379.4	1.3	870			.024	
E-7	395.0		274.0-394.0	390.4-391.2	.8	2200			.072	
E-8	404.0		253.0-403.0	383.3-384.7	1.4	230			<.005	
				394.5-395.9	1.4	330			<.010	
E-9	406.0		256.0-406.0	389.0-389.7	.7	14000			.57	
				395.5-396.4	.9	810			.028	
				398.8-400.0	1.2	210			<.005	

* From top to bottom depths

Four Corners Exploration Co.& Williams
Red Rocks 3 & 4 claims
McKinley Co., New Mexico
DMEA 3854

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
E-10	414.0		282.0-412.0	399.7-400.8	1.1	600			.016	
				403.5-404.1	.6	500			.018	
E-12	428.0		297.0-427.0	415.5-416.8	1.3	220			< .005	
				416.8-417.6	.8	370			< .010	
				417.6-418.5	.9	240			< .005	
				419.1-419.8	.7	440			.013	
				419.8-420.6	.8	230			< .005	
F-8	383.0		183.0-383.0	198.8-200.3	1.5	220			< .005	
				200.3-201.2	.9	350			< .010	
				361.0-362.2	1.2	350			< .010	
				371.6-372.4	.8	260			< .010	
				375.5-376.2	.7	680			.020	
				376.2-377.2	1.0	260			< .010	
G-4	348.0		196.0-346.0	318.8-319.4	.6	270			< .010	
G-6	364.0		212.0-362.0	354.4-355.0	.6	550			.020	
				355.2-356.0	.8	550			.017	
				356.0-356.7	.7	300			< .010	
G-8	382.0		231.0-381.0	354.3-355.0	.7	320			< .010	
				356.0-356.8	.8	400			.011	
				361.0-362.5	1.5	300			< .010	
				367.3-368.3	1.0	220			< .005	
				370.8-371.5	.7	1300			.040	
				371.5-372.5	1.0	300			< .010	

* From top to bottom depths

Four Corners Exploration Co.& Williams
Red Rocks 3 & 4 claims
McKinley Co., New Mexico
DMEA Docket No. 3854

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
G-9	396.0		275.0-395.0	351.3-352.0	.7	470			.015	
				352.0-353.5	1.5	330			<.010	
				355.1-356.0	.9	500			.014	
				356.0-357.3	1.3	210			<.005	
				366.4-367.6	1.2	260			<.005	
				367.6-369.9	2.3	360			<.010	
				370.2-370.9	.7	330			<.010	
				376.1-376.7	.6	280			<.010	
				379.5-380.3	.8	700			.024	
				380.3-380.9	.6	380			.012	
G-10	391.0		260.0-390.0	351.4-352.2	.8	340			<.010	
				352.2-353.0	.8	210			<.005	
				354.4-356.0	1.6	220			<.005	
				356.0-357.9	1.9	350			<.010	
				363.2-364.2	1.0	320			<.010	
				370.8-371.7	.9	410			.010	
				382.3-382.9	.6	400			.013	
H-8	366.0		215.0-365.0	333.3-334.0	.7	260			<.010	
				334.0-335.8	1.8	200			<.005	
				335.8-337.8	2.0	250			<.005	
				337.8-341.0	3.2	200			<.005	
				341.0-343.3	2.3	280			<.005	
				343.3-344.1	.8	230			<.005	
				345.1-345.9	.8	240			.005	
				354.3-354.9	.7	310			<.010	
				358.1-358.7	.7	330			<.010	

* From top to bottom depths

Four Corners Exploration Co. & Williams
Red Rocks 3 & 4 claims
McKinley Co., New Mexico
DMEA Docket No. 3854

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
H-10	385.0		274.0-374.0	342.9-344.6	1.7	200			< .005	
				344.6-345.5	.9	270			< .010	
				346.9-347.9	1.0	250			.005	
				357.3-358.2	.9	500			.014	
				358.6-359.5	.9	340			< .010	
				359.5-361.5	2.0	230			< .005	
				367.2-367.9	.7	270			< .010	
				374.5-375.3	.8	1700			.050	
I-4	315.0		165.0-315.0	314.7-315.5	.8	200			< .005	
				315.5-316.0	.5	400			.014	
I-6	355.0		217.0-337.0		Barren					Caved 18.0'
I-7	354.0		224.0-354.0		Barren					
I-8	365.0		242.0-362.0		Barren					
I-9	379.0		249.0-379.0	366.5-367.1	.6	270			< .010	
				368.6-369.4	.8	360			< .010	
				369.4-370.4	1.0	210			< .005	
I-10	391.0		240.0-390.0	376.1-377.9	1.8	220			< .005	
				377.9-379.2	1.3	600			.015	
				379.2-379.8	.6	1400			.051	
				379.8-380.8	1.0	410			.010	
I-11	390.0		228.0-388.0	374.9-376.3	1.4	320			< .010	
				377.9-378.7	.8	350			< .010	
				378.7-379.4	.7	230			< .010	

* From top to bottom depths

Four Corners Exploration Co.& Williams
Red Rocks 3 & 4 claims
McKinley Co., New Mexico
DMEA Docket No. 3854

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
J-10	420.0		297.0-417.0	397.5-398.5	1.0	260			< .010	
				401.3-401.9	.6	300			< .010	
				404.2-405.0	.8	3400			.13	
				405.0-406.3	1.3	220			< .005	
J-12	396.0		225.0-395.0	387.3-388.1	.8	800			.029	
				388.1-389.1	1.0	220			< .005	
K-11	395.0		362.0-392.0	365.3-365.8	.5	220			< .010	
				366.7-367.3	.6	240			< .010	
				370.1-371.6	1.5	270			< .005	
				380.0-380.9	.9	1000 R-3			.037	
				380.9-391.6	.7	320			< .010	

* From top to bottom depths

FINAL DISTRIBUTION

MADE APR 29 1957

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

Date: 4/26/57
Payee's Reference: March 1957

DMEA-3854

Four Corners Exploration Co.
Box 116
Grants, New Mexico

Gentlemen:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ 8,926.35

Difference $ 72.15

Amount Approved $ 8,854.20

EXTRA COPY
DMEA
RECEIVED MAY 1 1957

DATE	INITIALS	CODE
5/1	FEJ	110
5/1	~~Chg~~	700

The reason for the difference was due to:

Disallow:
10.5 feet of core drilling at $3.90 per foot $72.15

Reinstate:
$500.00 which was withheld from the Oct. '56 voucher.

Withhold:
$500.00 pending performance of additional work under the contract.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

224 New Customhouse
Denver 2, Colorado

April 25, 1957

FILE COPY
RECEIVED
DATE | CODE

Memorandum

To: T. A. Christensen

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket-3854, (Uranium) Contract Ida-3967
Four Corners Exploration Company, (Red Rock claims 3 and 4)
McKinley County, New Mexico - Operator's Monthly Progress Report, for the month of March, 1957

Enclosed are the original and four copies each of Forms MP-104 and MP-104A, Operator's Narrative Report, and Engineer's Report for the above period.

Except as otherwise noted below, we consider that the Operator has complied with the intent of the contract and the work for which payment is recommended is acceptable to the Government. No documentation is required for work performed under contracts prepared on Form MP-200A, therefore, we recommend that payment be made on the following basis, contingent on your verification of arithmetical accuracy within the report.

Disallowance, Core drilling

Nine holes penetrated in excess of 5 feet into the Entrada sandstone, which is contrary to the provisions of the contract. The excess drilling is disallowed as follows:

Hole No.	Penetration into Entrada ss.	Max. Allow. Penetration into Entrada ss.	Excess core footage
G-8	6.0	5	1.0
G-9	10.0	5	5.0
H-10	5.5	5	0.5
D-7	7.0	5	2.0
E-9	6.0	5	1.0
I-10	5.5	5	0.5
J-10	8.0	5	3.0
J-12	7.0	5	2.0
K-11	8.5	5	3.5

Total excess core footage---------- 18.5 feet

Disallow the cost of 18.5 feet of core drilling at $3.90 per foot ——— $72.15

Reinstate the amount of $500.00 which was withheld from the October, 1956 voucher.

Withhold an amount of $500.00 pending the performance of additional work under the contract. If additional work is not authorized by the Government and performed by the Operator, continue to hold this amount pending resolution of matters which are prerequisite to closing the account.

Reconciliation with Amount Reported by the Operator on Form MF-104 for March, 1957

Amount reported on Form MF-104 for March 1957		$8,926.35
Amount to be disallowed		72.15
Total accepted cost for March, 1957		$8,854.20
Government participation at 75 percent		6,640.65
Amount to be reinstated	$500.00	
Amount to be withheld	500.00	
Net deduction or reinstatement		0.00
Balance due the Operator		$6,640.65

Remarks

Date of Report	April 1, 1957
Date Received in Field Office	April 4, 1957
Date Received in Region Office	April 23, 1957

Original signed by
E. N. HARSHMAN
E. N. Harshman

Enclosures
JHC:bh
cc: Chem. Op. Comm. (2)
Shaw (2)
Harshman } w/copy of
Tennesson } Engr's report
MF-104 File, Reg. III
Chron.

DMEA
DEPARTMENT OF THE INTERIOR
APR 23 1957
REGION III
DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado
April 22, 1957

REGION III

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: W. D. McMillan

Subject: DMEA Docket 3854 (Uranium), Contract Idm-2967, Four Corners Exploration Company, (Red Rock Nos. 3 and 4 claims, sec. 24, T. 13 N., R. 18 W., N.M.P.M.) McKinley County, New Mexico. Progress report for March 1957.

An inspection of work completed under the subject contract was made on April 3, 1957, accompanied by Forrest Fischer, geologist for the applicant.

Sixteen holes were drilled during March which completes the 34-hole program authorized under Stage II of the contract. Of the 16 holes, 2 are barren, 13 penetrated mineralized rock and 1 hole encountered rock of sub-ore grade (more than 1 foot of 0.10 percent U_3O_8, but less than 2 feet of 0.20 percent U_3O_8.)

The operator claims payment based on 5,583 feet of non-core and 494 feet of core drilling which was performed according to contractors drill logs. Nine holes penetrated the Entrada formation more than the 5 feet specified in the contract and the following core footages are disallowed:

Hole No.	Footage into Entrada	Excess footage Disallow
G-8	6.0	1.0
G-9	10.0	5.0
H-10	5.5	0.5
I-7	7.0	2.0
I-8	6.0	1.0
I-10	5.5	0.5
J-10	8.0	3.0
J-12	7.0	2.0
K-11	8.5	3.5
Total		18.5

FILE COPY
DMEA
DATE
DATE
CASE

The following items are recommended for approval:

Item	Claimed	Disallow	Allow	Unit Cost	Amount
Non-core feet	5,583		5,583	$1.25	$6,978.75
Core feet	494	18.5	475.5	3.90	1,854.45
Chemical Assays	6		6	3.50	21.00
Total					$8,854.20
Government participation at 75 percent					$6,640.65

Non-core drilling in Stages I and II exceeded the amount estimated in contract specifications and was covered by transfer of footage from Stage III.

The operator submitted 5 copies of an adequate narrative report, lithologic logs, radiometric logs, Forms MF-104 and MF-104A, and one copy each of assay certificate and driller's logs, all of which accompany this report. He also calls attention to an error in recording the grade of ore in Hole F-9 on map showing holes drilled in February.

W. D. McMillan

WDMc:jg
Enclosure

cc: 6
Idx-2967
Chron.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1957 Docket No. DMEA 3854 Contract No. Idm-5967
Operator's Name Four Corners Exploration Co. Minerals Uranium
Address Box 116, Grants, New Mexico
Contract Amount, $ 48,424.00 Government Participation: 75 % Amount, $ 36,318.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent / Short Form Contracts:						
Drilling Plug	6,978.75	21,473.12	28,451.87			
Bulldozing	00.00	750.00	750.00			
~~Crosscutting~~ Coring	1,926.60	5,668.65	7,595.25			
Drifting Assays	21.00	52.50	73.50			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	8926.35	27,944.27	36,870.62	8854.20	27,944.27	36,798.47
				4-	117.00	117.00
					27,827.27	36,681.47
					$6646.65	

RECEIVED MAY 1 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 4-1-57 *Payee Four Corners Exploration Co

Per [signature] Title Owner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the ~~amount of:~~

Signature [signature]
(Authorized Certifying Officer)

Date 4/26/57 Voucher DMA 57-119
(See other side)

1 Previous Disallowance
Note: Withhold 500.00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E 967 in accordance with the terms of the contract.

Signature Wm C Mullen (B 664065) Title Min. Engr. Date 4/8/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature E. H. Hamerman Title Acting Executive Officer Date APR 25 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 195 7 Docket No. DMEA 3854 Contract No. Idm--E967

Operator's Name Four Corners Exploration Co. Minerals Uranium

Address Box 116, Grants, New Mexico

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Foot	1926.60	494.0	7595.25	1947.5	3.90		
~~Churn~~ Plug	Foot	6978.75	5585.0	28,451.87	22,761.5	1.45		
~~Auger~~ Assay	Assay	21.00	6	73.50	21	3.50		
Stripping								
Trenching								
Test Pits								
Roads and Trails Bulldozing hr.		0	0	750.00	60	12.50		
TOTAL DISTRIBUTED COSTS		8926.35		36,870.62				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		8926.35		36,870.62				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 4-1-57 Operator Four Corners Exploration

Per Chas. Rafaeli Title Owner

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

RECEIVED MAY 1 1957 D.M.E.A.

Wm McMillan

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

FOUR CORNERS EXPLORATION COMPANY
IRVING RAPAPORT
FORREST FINCHER
BOX 116
GRANTS, NEW MEXICO
TEL. AT 7-4722

Mar. 29, 1957
Idm--1907
Docket 3854

Narrative Report--March 1957

Sixteen holes, a total of 6,077.0 feet were drilled on the Red Rock Claims in March, thus completing the thirty-four authorized second stage holes. This total is composed of 5,583.0 feet of plug drilling to the top of the limestone and 494.0 feet of coring. Core recovery averaged 96.5%.

All holes were probed thru the Todilto limestone with a Babtel hole logging machine, and the core was boxed and stored after detailed lithologic logs were prepared on acetate.

It can be noted on the accompanying structure contour map that the completion of "second stage" drilling has delineated two rather sharp synclinal structures; one trends north-east thru the central portion of the Red Rock No. 3, while the other appears to trend east-west thru the western part of the Red Rock No. 4 in the vicinity of hole No. J-10. Both of these structures are characterized by containing either ore or sub-ore and strong uranium mineralization. These are the typical downwarped structures in which uranium ore bodies are found in the Todilto limestone.

The assay results (see drill hole tabulation and attached chemical assay report) of the sixteen holes completed are as follows: two holes barren, thirteen holes mineralized, and one hole sub-ore (more than 1 foot of .10 and less than 2 feet of .20% U_3O_8)

It may be noticed (see map) that there is a band of heavy uranium mineralization trending from hole K-11 south easterly, across both claims, to holes C-7 and C-8. It is considered quite possible that a narrow , tortuous elongate ore body may be present in this area.

Forrest Fincher

EXTRA COPY
DMEA
RECEIVED MAY 1 1957

DATE	INITIALS	CODE

IRVING RAPAPORT
FORREST FINCHER

FOUR CORNERS EXPLORATION COMPANY

BOX 116
GRANTS, NEW MEXICO

TEL. AT 7-4722

IRVING RAPAPORT
FORREST FINCHER

FOUR CORNERS EXPLORATION COMPANY

BOX 116
GRANTS, NEW MEXICO

TEL. AT 7-4722

IRVING RAPAPORT
FORREST FINCHER

FOUR CORNERS EXPLORATION COMPANY

BOX 116
GRANTS, NEW MEXICO

TEL. AT 7-4722

IRVING RAPAPORT
FORREST FINCHER

FOUR CORNERS EXPLORATION COMPANY

BOX 116
GRANTS, NEW MEXICO

TEL. AT 7-4722

March 30, 1957

Mr. John F. Shaw
U.S. Bureau of Mines

Dear Mr. Shaw,

I regret to inform you that an error was made while transposing chemical assays to map accompanying the hot rock area report (IDP-B67) for the month of February. This error was not reported in the narrative but you will note that hole P-9 on the map shows a 2 foot interval of .21% U_3O_8. Actually this should be 1 foot of .47% U_3O_8 and is so shown on the map accompanying the March report.

I am sorry if I have caused you needless work.

Sincerely yours,

Forrest Fincher

Forrest Fincher

cc: R. J. R. Bisler
Box 300
Grand Junction, Colo.

EXTRA COPY
DMEA
RECEIVED
DATE | INITIALS | CODE

ORE
MIN.
BARREN

FAV.
UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. [illegible]

PROJECT [illegible] 4

LOCALITY [illegible] CLAIM Red Rock 4

COLLAR ELEV. 6972.5 DEPTH 318

COORDINATES _____ _____

DATE COMPLETED _____

LOGGED BY [illegible] DATE _____

RECOVERY _____%

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
10								Hole 318	
320									16
									11

ORE ____
MIN. ✓
BARREN ____

____ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. B-6

PROJECT [illegible]

LOCALITY [illegible] CLAIM [illegible]

COLLAR ELEV. [illegible] DEPTH [illegible]

COORDINATES _____ _____

DATE COMPLETED _____

LOGGED BY [illegible] DATE _____

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
340									
								Pl. 234	
320									12
300									17
280									
260									

RECEIVED
MAY 1 1957
D.M.E.A.

ORE ____
MIN. ✓
BARREN ____

✓ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. 6-8

PROJECT Red Rock Drill

LOCALITY [illegible] CLAIM Red Rock 9

COLLAR ELEV. 6976.5 DEPTH 30[illegible]

COORDINATES _____ _____

DATE COMPLETED 3-14-57

LOGGED BY ERE DATE 3-26-57

RECOVERY 95 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								Plug [illegible]	
		By	[illegible]	[illegible]				[illegible]	360
		[illegible]	[illegible]	[illegible]					
		[illegible]	[illegible]	[illegible]					
		[illegible]	[illegible]	[illegible]					320
		[illegible]		[illegible]			[illegible]	[illegible] 370-372 [illegible]	
		R [illegible]	[illegible]	F				[illegible]	380
									320

ORE ____
MIN. ✓
BARREN ____

____ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. 6-7

PROJECT [illegible]

LOCALITY [illegible] CLAIM [illegible]

COLLAR ELEV. [illegible] DEPTH [illegible]

COORDINATES ____ ____

DATE COMPLETED 3-16-[illegible]

LOGGED BY [illegible] DATE [illegible]

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
									15/15
									15/15
									12/12

ORE ____ ✓ FAV.
MIN. ✓ ____ UNFAV.
BARREN ____

FOUR CORNERS EXPLORATION CO.

HOLE NO. G-10

PROJECT Red Rock Drill

LOCALITY [illegible] CLAIM Red Rock 4

COLLAR ELEV. 6222.6 DEPTH 391

COORDINATES _____ _____

DATE COMPLETED 3-13-51

LOGGED BY [illegible] DATE 3-26-51

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
335								Plug 360'	
		34		F				[illegible] Thick	
		34							
		31							15
		[illegible]							15
325									
		[illegible]		C				No [illegible]	
				F-C					
								← [illegible] 1/4" [illegible]	
320							1130	← 388 - 392.2	
								[illegible]	16
									16
								← [illegible]	
			THI	F				[illegible]	

RECEIVED
MAY 1 1957
D.M.E.A.

ORE _____ HOLE NO. H-8 FAV. ←

MIN. ← _____ FAV. ___

BARREN _____

FOUR CORNERS EXPLORATION

CONTRACT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 4

COLLAR ELEV. 6969.3 DEPTH 366

DATE STARTED _____

DATE COMPLETED 3-12-57

LOGGED BY LRE DATE 3-26-57

Recov. 100%

DEPTH	GEOLOGIC COL.	COLOR	BEDDING	TEXTURE	CHEM. ASSAY	CARBON	ORE MINERALS	MISCEL.	DEPTH
								Plug 327	
330		Gy Rcn	THK	F				← Thick interb. zone	
		R Gy Gn							15
		Gy Gn		F					15
340								Very thick interb zone.	
				F				← Base thick dirty SS.	
		Gy Dcy	Thn	C				← "Chunky"	15
350								← "Platy"	15
		Gy	Med	LM				← 354-54½ A/Rcn	
360								← A/BR Med Not Ca O & (Mn?)	9 9
		RBn yw	THK	F				Unlada	
370									

ORE _____ HOLE NO. 4-10 FAV. ✓

MIN. ✓ _____ FAV. ___

BARREN _____

FOUR CORNERS EXPLORATION

CONTRACT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 4

COLLAR ELEV. 6972 DEPTH 385

DATE STARTED _____

DATE COMPLETED 3-11-57

LOGGED BY FRF DATE 3-25-57

96% Recov.

DEPTH	GEOLOGIC COL.	COLOR	BEDDING	TEXTURE	CHEM. ASSAY	CARBON	ORE MINERALS	MISCEL.	DEPTH
								Plug 347	
350		Gy Gn	THK	F				← Intert. L.S. Gn & Gy Sst.	15/15
		Gn							
360		Gy Gn							
		Gy		C & VC				← "Crinkly"	
370		Gy	Thn	C				← A/Mon vert. Pbs. ← Tr. Mon thru a. Pbs.	14/14
		Gy	Med	F M				← 371½ A/Mon vert. & Pbs.	
							U_3O_8	← 375½-376 Finely disem. U_3O_8	
380		W Bn	THK	F				Entrada	1½ / 9.0
390									

ORE ____
MIN. ✓
BARREN ____

____ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. 7-6

PROJECT [illegible]

LOCALITY [illegible] CLAIM ____

COLLAR ELEV. 6923.7 DEPTH 325

COORDINATES ____ ____

DATE COMPLETED [illegible]

LOGGED BY [illegible] DATE [illegible]

RECOVERY 91 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								Plug 327'	
32			Lk	C	Tl Hem				11
32			Lk	C					
				Fam					12½
33							Lk		15
33									

RECEIVED
MAY 1 1957
D.M.E.A.

ORE _____ HOLE NO. I-7 FAV. ___

MIN. _____ FAV. ✓

BARREN ✓

FOUR CORNERS EXPLORATION

CONTRACT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 4

COLLAR ELEV. 6963.8 DEPTH 354

DATE STARTED _____

DATE COMPLETED 3-4-57

LOGGED BY FRF DATE 3-25-57

23/29 80%

DEPTH	GEOLOGIC COL.	COLOR	BEDDING	TEXTURE	CHEM. ASSAY	CARBON	ORE MINERALS	MISCEL.	DEPTH
320									
								Plug 325'	
		LGy	M	VC				← c. xtals w/ CaCO3	
330		Gy DBy	Thn	C				← "Crud"	
		Gy	M	F-M				← "Pitty"	
340								← To Hem.	
		yw Bh	THK	F				Entrada	
350								Core loss in Entrada	

ORE _____ HOLE NO. I-8 FAV. ____

MIN. _____ UNFAV. ✓

BARREN ✓

FOUR CORNERS EXPLORATION

CONTRACT Red Bell DMEA

LOCALITY Grants CLAIM _____

COLLAR ELEV 6974.4 DEPTH 365

DATE STARTED _____

DATE COMPLETED 3-5-57

LOGGED BY FRF DATE 3-27-57

Recov. 91%

DEPTH	GEOLOGIC COL.	COLOR	BEDDING	TEXTURE	CHEM. ASSAY	CARBON	ORE MINERALS	MISCEL.	DEPTH
340									
								Plug 343'	
		Gy Gn	Hrd	F				← silty.	
				C					
350		Gy D.	Thn	C				← A/ Arg. on sl/ys	
								surf. of sand lo	
		Gy	Hrd	F-M				← platy.	20/22
								← Th. Hem/Lo.	
360									
		Rbn	Thn	F				Fatrock	
370									

ORE _____ HOLE NO. I-9 FAV. ✓

MIN. ✓ (Traces) FAV. ___

BARREN _____

FOUR CORNERS EXPLORATION

CONTRACT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 4

COLLAR ELEV. 6980.8 DEPTH 379

DATE STARTED _____

DATE COMPLETED 3-6-57

LOGGED BY ERF DATE 3-27-57

Recov. 98%

DEPTH	GEOLOGIC COL.	COLOR	BEDDING	TEXTURE	CHEM. ASSAY	CARBON	ORE MINERALS	MISCEL.	DEPTH
								Plug 339	
340								Gy. L.S.	
		R. Gn	THK	F				← RBn SSt. & Mis.	
		Gy							15
			Med	C				← 2½' "Vugy" L.S.	15
350								← Coarse xtals ½"	
		Gy	Thn	C				← indistinct crinkly	
		Dgy							
		Gy	Med	fm					
360									13
								← Thick homog. Platy zone	13
								← Hem (?)	
370									
		Rw	THK	F				Entered	11
		Bn							22

ORE _____ HOLE NO. I-10 FAV. ✓

MIN. ✓ FAV. ___

BARREN _____

FOUR CORNERS EXPLORATION

CONTRACT Red Rock DMEA

LOCALITY Grants CLAIM Red Rock 1

COLLAR ELEV. 6977.3 DEPTH 391

DATE STARTED _____

DATE COMPLETED 3-7-56

LOGGED BY FRF DATE 3-27-56

98% Recov.

DEPTH	GEOLOGIC COL.	COLOR	BEDDING	TEXTURE	CHEM. ASSAY	CARBON	ORE MINERALS	MISCEL.	DEPTH
360									
								Plug 366	
370		L.Gy	THK	C				← silty, ← lim stn in silty L.S.	15 / 15
		Gy DGy	Thn	C				← A/pk Hematite stylo surf.	
380		Gy		F-M					
			M				U3O8	~ 380-381 - pk spotted sandy discon. in L.S.	9½
390		R Yw BN	THK	F				Entrada	10

MAY 1 1934
GENERAL LIBRARY

ORE _____ HOLE NO. I-11 FAV. ✓

MIN. ✓ FAV. ___

BARREN _____

FOUR CORNERS EXPLORATION

CONTRACT Red Rock DMEA

LOCALITY Groats CLAIM Red Rock 4

COLLAR ELEV. 6979.5 DEPTH 390

DATE STARTED _____

DATE COMPLETED 3-9-57

LOGGED BY 3-25-57 DATE 3-9-57

Recov. 100%

DEPTH	GEOLOGIC COL.	COLOR	BEDDING	TEXTURE	CHEM. ASSAY	CARBON	ORE MINERALS	MISCEL.	DEPTH
360									
								Plug 365	
		BY LGY	Med	C VC.				C/x-1 [illegible]	
370								← A/bent Vert Fract	
		BY DGY	Thin	C				← Chunky	15
								"plate"	15
		GY	Med	F-M				← A/bent Low ang Fract.	
380									
								Salty	10
									10
		RYW BR	THR	F				Fractured	
390									

ORE ___
MIN. ✓
BARREN ___

✓ FAV.
___ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. J-10

PROJECT Red Lake Dist A

LOCALITY Grants CLAIM Rio Rancho

COLLAR ELEV. 6292.1 DEPTH 400

COORDINATES _____ _____

DATE COMPLETED 3-23-57

LOGGED BY FRE DATE 3-2-57

RECOVERY 100 %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
								S/Pertinent thin ppt	
397								Pinch	
		Lt Gy	Thin & Mas	S	S/Pow			DK/ in L.S.	
405				FM	A/Pow			Vugs (sm) filled @ CaCO3 xtals. S/Crenulations but not typical "crinkly"	15
		Gy			A/Chem.		U3O8 Carn	405½-406½ U3O8-Pyrite. TH/Carn.	
410		Med Gy	Thk	F				Bottom	10
420									

ORE ____
MIN, ✓
BARREN ____

✓ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. J-12

PROJECT [illegible]

LOCALITY [illegible] CLAIM [illegible]

COLLAR ELEV. 6943.2 DEPTH 296

COORDINATES ____

DATE COMPLETED [illegible]

LOGGED BY [illegible] DATE [illegible]

RECOVERY 72 %

23/23

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
310								311 [illegible]	
			THK	C	Tr [illegible]			[illegible]	
					A/ [illegible]			[illegible]	
290		[illegible]	THK	C				[illegible]	
		By [illegible]	Bed	F-M				← P [illegible]	
								← P [illegible] Arag. [illegible]	
320		R [illegible]	THK	F				Path 29	
400									

ORE ____
MIN. ____
BARREN ____

____ FAV.
____ UNFAV.

FOUR CORNERS EXPLORATION CO.

HOLE NO. [illegible]

PROJECT [illegible]

LOCALITY [illegible] CLAIM [illegible]

COLLAR ELEV. [illegible] DEPTH 395

COORDINATES _____ _____

DATE COMPLETED 3-19-[illegible]

LOGGED BY [illegible] DATE [illegible]

RECOVERY [illegible] %

RECOVERY	GEOLOGIC COLUMN	COLOR	BEDDING	TEXTURE	GRAIN COATINGS	CARBON	ORE MINERALS	MISCELLANEOUS	DEPTH
360									15
370									
380									
									10

OFFICIAL FILE COPY
DMEA
RECEIVED APR 29 1957

DATE	INITIALS	CODE
4/29	C	220
4/30	[illegible]	800
		700

224 New Customhouse
Denver 2, Colorado

April 26, 1957

Mr. Forrest Fischer, Geologist
Four Corners Exploration Company
P. O. Box 967
Grants, New Mexico

Re: Docket No. DMEA 5854 (Uranium)
Contract No. Idm-2967
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Dear Mr. Fischer:

Enclosed are the original and five copies of proposed Amendment No. 2 to Contract No. Idm-2967, which has been prepared in reference to your request of April 19, 1957 to extend the date fixed for completion of the work an additional two months.

If the Amendment is satisfactory, all copies are to be signed by both partners as indicated and all copies promptly returned to this office; upon receipt of which, and after signature by the Acting Executive Officer, DMEA Field Team, Region III, for the Government, a copy of the Amendment will be returned to you.

Very truly yours,

Original signed by
F. N. HARSHMAN

F. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWF:prl

cc: Chairman, Op. Comm. (2)
Harshman
Konselman (2)
Mailer
Townsend
Corres. file
Caron.

OFFICIAL FILE COPY
DMEA
RECEIVED APR 29 1957

DATE	INITIALS	CODE
4/29	C	220
4/30	VGD	800
1c	~~Chard~~	700
	J	

224 New Customhouse
Denver 2, Colorado

April 25, 1957

Mr. F. O. Manol
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: DMEA Docket-3854 (Uranium)
Contract I[illegible]-967
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Dear Mr. Manol:

Form MP-104, Operator's Monthly Report and Voucher for March, 1957 has been received in this office and is being processed for payment. The following deductions and reinstatement have been made:

Disallowance, Core drilling:

Nine of the holes drilled during March, 1957 penetrated in excess of 5 feet below the contact between the Todilto limestone and the Entrada sandstone. The contract stipulates that all holes are to be bottomed 5 feet below this contact, therefore the cost of the following excess core drill footage is disallowed.

Hole No.	Excess core footage
G-8	1.0
G-9	5.0
H-10	0.5
I-7	2.0
I-9	1.0
I-10	0.5
J-10	3.0
J-12	2.1
K-11	1.5

Total excess core footage——— 18.5

Amounts Reinstated and Withheld

The amount of $500.00 which was withheld from the October, 1956 voucher is reinstated, and a like amount is withheld from the March, 1957 voucher pending performance of additional work under the contract.

You will be informed of the amounts deducted and reinstated by means of an Administrative Audit Difference Statement which will be mailed to you by the Finance Office, Region III.

Enclosed for your convenience is a "Sample" copy of Form MV-2044, Operator's Unit Cost and Progress Report which we have prepared to illustrate the preferred method of reporting on this form. All disallowed units and costs to date have been deducted from the units and costs shown on the "Sample" form, and adjustment has been made for the non-core footage which has been transferred from Stage III to Stages I and II. Please carefully check the units and costs shown on the form against your records, and notify this office in the event you are unable to reconcile your records with the "Sample" form.

Yours very truly,

Original signed by
E. N. HARSHMAN
E. N. Harshman
Acting Executive Officer
DMA Field Team, Region III

Enclosure

JDC:kh
cc: Chmn. Op. Comm. (2)
Harshman
Shaw (2)
Townsend
Corres. File, Reg. III
Chron.

Form MF-104A
(April 1952)

COPY

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of ..... 195..... Docket No. DMEA ..... Contract No. 10m-8967

Operator's Name Four Corners Exploration Company Minerals Uranium

Address Box 116, Grants, New Mexico

	OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Stage I	~~Drifting~~ Core drilling	Ft			3,471.00	890	3.90	1100	3.90
	Crosscutting Non core	Ft			13,590.62	10872.5	1.25	10663	1.25
	~~Raising~~ Assays	Spl			14.00	4	3.50	20	3.50
	~~Shafts~~ Building	Hr			375.00	30	12.50	30	12.50
Stage II	~~Winzes~~ Core drilling	Ft			3,935.10	1009	3.90	1230	3.90
	~~Drilling Core~~ Non core	Ft			14,861.25	11889	1.25	11668	1.25
	~~Stope~~ Assays	Spl			59.50	17	3.50	40	3.50
	~~Stope~~ Building	Hr			375.00	30	12.50	30	12.50
Stage III	~~Stripping~~ Core drilling	Ft						740	3.90
	~~Trenching~~ Non core	Ft						5749	1.25
	~~Test Pits~~ Assays	Spl						40	3.50
	~~Roads and Trails~~ Building	Hr						20	12.50
	TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
	Operating Equipment Purchased								
	Initial Rehabilitation and Repairs								
	New Buildings, Improvements, etc.								
	TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date ..... Operator .....

Per ..... Title .....

REMARKS: .....

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

OFFICIAL FILE COPY
DMEA
RECEIVED APR 29 1957

DATE	INITIALS	CODE

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

224 New Customhouse
Denver 2, Colorado

April 29, 1957

EXTRA COPY DMEA RECEIVED APR 29 1957		
DATE	INITIALS	CODE

Mr. F. G. Manal
Four Corners Exploration Company
P. O. Box 116
Gallup, New Mexico

Re: TEM Docket-3654 (Uranium)
Contract Ida-[illegible]
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Dear Mr. Manal:

Form MF-104, Operator's Monthly Report and Voucher for March, 1957 has been received in this office and is being processed for payment. The following deductions and reinstatement have been made:

Disallowance, Core drilling:

Nine of the holes drilled during March, 1957 penetrated in excess of 5 feet below the contact between the Todilto limestone and the Entrada sandstone. The contract stipulates that all holes are to be terminated 5 feet below this contact, therefore the cost of the following excess core drill footage is disallowed.

Hole No.	Excess core footage
G-8	1.0
G-9	5.0
H-10	0.5
I-7	2.0
I-9	1.0
I-10	0.5
J-10	3.0
J-12	2.1
K-11	1.1
Total excess core footage	16.5

Amounts Reinstated and Withheld

The amount of $500.00 which was withheld from the October, 1956 voucher is reinstated, and a like amount is withheld from the March, 1957 voucher pending performance of additional work under the contract.

You will be informed of the amounts deducted and reinstated by means of an Administrative Audit Difference Statement which will be mailed to you by the Finance Office, Region III.

Enclosed for your convenience is a "Sample" copy of Form MV-104A, Operator's Unit Cost and Progress Report which we have prepared to illustrate the preferred method of reporting on this form. All disallowed units and costs to date have been deducted from the units and costs shown on the "Sample" form, and adjustment has been made for the non-core footage which has been transferred from Stage III to Stages I and II. Please carefully check the units and costs shown on the form against your records, and notify this office in the event you are unable to reconcile your records with the "Sample" form.

Yours very truly,

Original signed by
E. N. HARSHMAN
E. N. Harshman
Acting Executive Officer
UMSA Field Team, Region III

Enclosure

JDC:hh
cc: Chem. Op. Comm. (2)
Harshman
Shaw (2)
Tashmond
Corres. File, Reg. III
Chron.

Form MF-104A
(April 1952)

COPY

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of ..... 195..... Docket No. DMEA ..... Contract No. 10-2967

Operator's Name Four Corners Exploration Company Minerals Uranium

Address Box 116, Grants, New Mexico

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Stope 1 ~~Drifting~~ Core drilling	ft			3,471.00	890	3.90	1100	3.90
~~Crosscutting~~ Non core	ft			13,590.62	10872.5	1.25	10663	1.25
~~Raising~~ Assays	spl			14.00	4	3.50	20	3.50
~~Shaft~~ Building	hr			375.00	30	12.50	30	12.50
Stope 2 ~~Winzes~~ Core drilling	ft			3,935.10	1009	3.90	1230	3.90
~~Drifting~~ ~~Core~~ Non core	ft			14,861.25	11889	1.25	11668	1.25
~~Shaft~~ Assays	spl			99.50	17	3.50	40	3.50
~~Shaft~~ Building	hr			375.00	30	12.50	30	12.50
Stope 3 ~~Stripping~~ Core drilling	ft						740	3.90
~~Trenching~~ Non core	ft						5749	1.25
~~Test Pits~~ Assays	spl						40	3.50
~~Roads and Trails~~ Building	hr						20	12.50
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date ..... Operator .....

Per ..... Title .....

Remarks: .....

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

EXTRA COPY
DMEA
RECEIVED APR 29 1957

DATE	INITIALS	CODE

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

FINAL DISTRIBUTION
MADE APR 25 1957

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

Four Corners Exploration Company
Box 116
Grants, New Mexico

Date: April 25, 1957
Payee's Reference: February 1957
DMEA-385d

Gentlemen:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$	10,411.75
Difference	$	35.10
Amount Approved	$	10,376.65

The reason for the difference was due to:

Disallows 9ft core drilling @ $3.90 per ft. $35.10.

EXTRA COPY
DMEA
RECEIVED APR 29

DATE	INITIALS	CODE
4/29	[illegible]	110
"	[illegible]	700

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

224 New Customhouse
Denver 2, Colorado

April 23, 1957

EXTRA COPY
DMEA
RECEIVED
DATE

Memorandum

To: T. A. Christensen

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3854, (Uranium) Contract Idm-E967 Four Corners Exploration Company, (Red Rock claims 3 and 4) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of February, 1957

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Operator's Narrative Report, and Engineer's Report for the above period.

Except as otherwise indicated below, we consider that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended on the following basis, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Lithologic logs submitted by the Operator indicate that drill holes C-8 and D-6 penetrated more than five feet into the Entrada sandstone, which is contrary to the contract provisions. The cost of the excess footage is to be disallowed as follows:

Hole No.	Penetration into Entrada sandstone	Maximum allowable penetration into Entrada sandstone	Excess Core Footage
C-8	7 feet	5 feet	2 feet
D-6	12 feet	5 feet	7 feet
	Total excess core footage		9 feet

Disallow the reported cost of 9 feet of core drilling at $3.90 per feet ——— $35.10

Reconciliation with amount Reported by the Operator on Form MF-104 for February, 1957

Amount reported on Form MF-104 for February, 1957	$10,411.75
Amount to be disallowed	35.10
Total acceptable cost for February, 1957	$10,376.65
Government participation at 75 percent	$ 7,782.49

Remarks

Date of Report	March 4, 1957
Date Received in Field Office	March 11, 1957
Date Received in Region Office	March 18, 1957

Original signed by
E. N. HARSHMAN
E. N. Harshman

JDC:hh
cc: Chmn. Op. Comm. (2)
Shaw (2)
Harshman)w/copy of Engr's
Townsend) report
MF-104 File, Reg. III
Chron.

EXTRA COPY
DMEA
RECEIVED APR 29 1957
DATE | INITIALS | CODE

DMEA
DEPARTMENT OF THE INTERIOR

APR 22 1957
REGION III
DENVER, COLORADO

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
April 17, 1957

Memorandum

To: Executive Officer, Region III, DMEA Field Team
Through: John F. Shaw
Supervising Mining Engineer

From: W. D. McMillan

Subject: DMEA Docket 3854 (Uranium) Contract Idm-E967, Four Corners Exploration Company, Red Rock Nos. 3 and 4 claims, Sec. 24, T. 13 N., R. 10 W., NMPM, McKinley County, New Mexico -- Progress report for February 1957

An inspection of work completed under the subject contract was made on April 3, 1957, accompanied by F. Fincher, geologist for the applicant.

Eighteen holes consisting of 6306 feet of non-core drilling and 542.5 feet of core drilling were completed. Of the 18 holes, 16 were mineralized, 1 hole penetrated more than 2.7 feet of rock containing an average of 0.22 percent U_3O_8 and 1 hole was barren.

The operator submitted 5 copies of a narrative report, five copies of forms MF-104 and 104A, 5 copies of radiometric logs, 2 copies of lithologic logs, 5 maps showing structure contours, locations and assays in drill holes, 2 copies of assay certificate, 1 copy of bulldozing invoice and one copy of driller's logs on which his charges are listed.

Lithologic logs show that holes C-8 and D-6 were drilled 7 and 12 feet, respectively, into Entrada Sandstone whereas only 5 feet of penetration is allowed by the contract.

Therefore 9 feet of core drilling is disallowed. Items recommended for approval are:

6306 feet of non-core drilling at $1.25 a foot	$7882.50
533.5 feet of core drilling at $3.90 a foot	2080.65
30 hours bulldozing at $12.50 an hour	375.00
11 chemical assays at $3.50 each	38.50
	$10,376.65

It is recommended that 75 percent of the approved total amounting to $7782.49 be paid.

cc: 6 Idm-E967 Chron

W. D. McMillan, Mining Engineer

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1957 Docket No. DMEA 3854 Contract No. Idm E-967
Operator's Name Four Corners Exploration Co. Minerals Uranium
Address Box 116, Grants, N.M.
Contract Amount $48,424.00 Government Participation 75 % Amount $36,318.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Plug	7882.50	13590.62	21473.12			
Bulldozing	375.00	375.00	750.00			
~~Crosscut~~ Coring	2115.75	3552.90	5668.65			
~~Drift~~ Assays	38.50	14.00	52.50			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	10411.75	17532.52	27944.27	10,376.65	17,532.52	27,909.17
				15	81.90	81.90
					17,450.62	27,827.27

RECEIVED APR 29 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.

Date March 4, 57 *Payee Four Corners Exploration Co.

Per [signature] Owner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of: $7782.49

Signature [signature]
(Authorized Certifying Officer)

Date 4/25/57 Vou. No. DMEA 57-117
(See other side)

Previous Disallowance

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idn-E 967 in accordance with the terms of the contract.

Signature Willie Mullen (# 7733.34 / 7732.49 Plate) Title Min. Engr Date 4/8/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature R. M. Hardaman Title acting Executive Officer Date APR 23 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 1957 Docket No. DMEA 3854 Contract No. Jdm E-967
Operator's Name Four Corners Exploration Co. Minerals Uranium
Address Box 116, Grants, N.M.

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	foot	2115.75	542.5	5668.65	1453.5	3.90		
--- Churn Plug	foot	7882.50	6306.0	21473.12	17178.5	1.25		
--- Auger Assays	assay	38.50	11	52.50	15	3.50		
Stripping								
Trenching								
Test Pits								
Roads and Trails	hour	375.00	30	750.00	60	12.50		
Total Distributed Costs		10411.75		27944.27				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		10411.75		27944.27				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date March 4, 1957 Operator Four Corners Exploration

Per [signature] Title Owner

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

Remarks:

(Instructions on reverse)

(For Government use only)

RECEIVED APR 29 1957 D.M.E.A.

[signature]

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

IRVING RAPAPORT
FORREST FINCHER

FOUR CORNERS EXPLORATION COMPANY
BOX 116
GRANTS, NEW MEXICO
TEL. AT 7-4722

RECEIVED
MAR 11 1957
Div. of Mineral Technology
BUREAU OF MINES
Denver Experiment Station
Denver, Colorado

March 7, 1957

Idm E967
Docket 3854

Narrative Report - February 1957

Eighteen holes, a total of 6,848.5 feet, were drilled on the Red Rock Claims in March. This total is composed of 6,306 feet of plug drilling to the top of the limestone and 542.5 feet of coring. The average depth of hole was 380.5 feet. Core recovery averaged 97.4%.

One hole, C-8, caved before it could be probed and attempts to clear the block failed. However, core recovery on this hole averaged 97% and a complete evaluation of the mineralization in that hole was possible.

A comparison of the accompanying map and the last progress report illustrates how holes drilled thus far on second stage have served to sharply define the syncline that was vaguely outlined by first stage drilling. Virtually all limestone of the Grants District have been found in sharp downwarps of this type.

The assay results (see drill hole tabulation and attached chemical assay report) of the eighteen hole completed are as follows: 1 hole barren; 16 holes mineralized; 1 hole ore (more than 2 feet of .20% U_3O_8)

It may be noticed that the chemical assays are for thinner zones but yield considerably higher grades when compared with the gamma ray logs for the equivalent depths. These narrow stringers of high grade often imply the presence of a thick high grade ore body within 50 feet.

Drill hole E-9, an ore hole (2.7 feet @ .222% U_3O_8) and F-9 which contains 1 foot at .21% U_3O_8 are 100 feet apart in an east-west direction. (see map) The structure contours at and west of these holes also have an anomalous east-west trend. It may be that these holes are at the edge of a large narrow east-west ore deposit similar to the 110,000 ton body of the Santa Fe Railway Company on Section 25 immediately to the south.

Irving Rapaport

EXTRA COPY
DMEA
RECEIVED APR 29

DATE	INITIALS	CODE

IRVING RAPAPORT
FORREST FINCHER

FOUR CORNERS EXPLORATION COMPANY
BOX 116
GRANTS, NEW MEXICO

TEL. AT 7-4722

DRILL HOLE TABULATION, RED ROCK CLAIMS, FEBRUARY, 1957

Hole No.	Plug	Core	Depth	From	To	Gamma Value
A-2	287	29.0	316	0	285	0
				285	288	tr
				288	297	0
				297	300	tr
				300	307	0
				307	310.5	.04
				310.5	314	0
C-2	297	28.5	325.5	0	315.5	0
				315.5	318.5	.02
				318.5	324	0
C-4	324	26.0	350	0	325.5	0
				326	328	tr
				328	341.5	0
				341.5	344.5	.02
				344.5	350	0
C-7	359	36.0	395	0	385	0
				385	386.5	tr
				386.5	388.5	.04
				388.5	390.5	.01
				390.5	394.7	0
C-8	377	35.0	412	Hole Caved		
C-10	404	26.0	430	0	416.5	0
				416.5	417.5	tr
				417.5	421.5	.02
				421.5	429	0
D-6	357	42.0	399	0	351	0
				351	366	.02
				366	393.5	0
D-8	386	31.0	417	0	404	0
				404	406.5	tr
				406.5	408	.01
				408	408.5	.10
				408.5	409.5	.01
				409.5	416.6	0
E-2	294	25.0	319	0	319	0
E-4	328	28.0	356	0	336	0
				336	337	tr
				337	350	0
				350	352	tr
				352	356	0

[redacted]
FORREST FINCHER

FOUR CORNERS EXPLORATION COMPANY
BOX 116
GRANTS, NEW MEXICO

TEL. AT 7-4722

Hole No.	Flux	Core	Depth	From	To	Gamma Value
E-6	349	35.0	384	0	360.5	0
				360.5	363	tr
				363	366	0
				366	367	.02
				367	379	0
				379	381	.03
				381	384.3	0
E-7	365	30.0	395	0	391	0
				391	392	.05
				392	395	0
E-8	378	26.0	404	0	383.5	0
				383.5	384.5	tr
				384.5	393.5	0
				393.5	396.5	tr
				396.5	403.5	0
E-9	370	36.0	406	0	387	0
				387	389.5	.02
				389.5	391.5	.37
				391.5	401.5	tr
				401.5	406	0
E-10	385	29.0	414	0	400	0
				400	405.5	.01
				405.5	413.5	0
E-12	403	25.0	428	0	417	0
				417	420	.01
				420	427.7	0
F-8	354	29.0	383	0	360	0
				360	363	tr
				363	375	0
				375	377	.02
				377	383	0
I-4	289	26.0	315	0	304	0
				304	306	.01
				306	315	0
Totals	6,306.0	542.5	6,848.5			

EXTRA COPY
D M E A
RECEIVED [illegible]
DATE | INITIALS | CODE

OFFICIAL FILE COPY
DMEA
RECEIVED APR 25 1957

DATE	INITIALS	CODE
4/25	C	220
4/25	[illegible]	800
4/26	[illegible]	700

224 New Customhouse
Denver 2, Colorado

April 23, 1957

Mr. F. O. Manol
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: DMEA Docket 3854 (Uranium)
Contract Idm-2967
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Dear Mr. Manol:

Form M-104, Operator's Monthly Report and Voucher for February 1957, has been received in this office and is being processed for payment.

The lithologic logs which were submitted with your report show that hole C-8 penetrated 7 feet and hole D-6 penetrated 12 feet below the contact between the Todilto limestone and the underlying Entrada sandstone. The contract stipulates that all holes are to be bottomed five feet below the contact. The cost of the excess core drilling in the two holes is disallowed. You will be notified of the exact amount disallowed by means of an Administrative Audit Difference Statement, which will be mailed to you by the Finance Office, Region III.

Yours very truly,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer,
DMEA Field Team, Region III

JDC:hh
cc: Chmn. Op. Comm. (2)
Harshman
Shaw (2)
Townsend
Corres File, Reg.III
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

April 15, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3854 (Uranium), Contract No. Idm-E967, Four Corners Exploration Company (Red Rock claims), McKinley County, New Mexico

Enclosed are four copies of approval by the Field Team, Region III, for the transfer of drill footage and funds from Stage III to Stage II to permit completion of approved Stage II holes to the desired horizon.

Also enclosed are four sets of data relative to the matter.

Copies of the approval for transfer of footage 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 17 1957

DATE	INITIALS	CODE
4-17	C.	220
		~~275~~
		700
4/29	Ching	

224 New Customhouse
Denver 2, Colorado

April 15, 1957

Mr. Irving Rappaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: Docket No. DMEA 3954 (Uranium)
Contract No. 16m-2967
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Dear Mr. Rappaport:

In reference to the request, dated March 30, 1957, from Forrest Fincher, and consistent with provisions in the Contract, the Government approves transfer of not to exceed 389 feet of non-core drilling and applicable funds from Stage III to Stage II to permit completion of the thirty-four (34) approved Stage II holes to the desired horizon. Stage III drilling footage and funds will be reduced an equal amount.

Nothing in this approval for transfer of footage and funds shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Very truly yours,

DMEA Field Team, Region III

By E. M. Harshman
E. M. Harshman
Acting Executive Officer

JWT:pvl
cc: Chairman, Op. Comm. (4)
Finance Office, Reg. III
Amendment file, Reg. III
Harshman
Shaw (2)
Hasler
Townsend

Corres. file
Chron.

Official Docket
EXTRA COPY
DMEA
RECEIVED
DATE | CODE

DMEA

DEPARTMENT OF THE INTERIOR

APR 15 1957

REGION III

DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado
April 12, 1957

Memorandum:

To: Executive Officer, DMEA Field Team, Region III
Through: John F. Shaw, Supervising Mining Engineer

From: W. D. McMillan

Subject: Docket DMEA 3654 (Uranium), Contract Idm-8967, Four Corners Exploration Company, (Red Rock Nos. 3 and 4 claims, sec. 24, T. 13 N., R. 9 W., NMPM), McKinley County, New Mexico. Reconciliation of footages.

Stage I contract specifications are for 10,000 feet of non-core drilling and 1,100 feet of core drilling

During the execution of Stage I drilling, additional footage of non-core drilling was considered necessary, and on November 23, 1956, 663 feet was transferred from Stage III.

Approved drilling in Stage I was 10,872.5 feet of non-core and 890.0 feet of core drilling resulting in an excess of 872.5 feet less transfer of 663 or 209.5 feet of non-core drilling and 210 unused feet of core drilling. Stage II contract specifications are for 11,300 feet of non-core drilling and 1,230 feet of core drilling.

Work was completed on Stage II in March, 1957, with approved footages of 11,889.0 feet of non-core drilling and 1036.5 feet of core drilling, resulting in an excess of 589.0 feet of non-core drilling, and 193.5 unused core drilling. Stage II work has been checked in the field, and the progress report for February and March, 1957, have been received, but cannot be processed until a transfer from Stage III of non-core drilling is approved.

After deduction of unused core footage, the total non-core footage to be transferred from Stage III is 395 feet, leaving a balance in Stage III of 5,782 feet of non-core and 740 feet of core footage.

It is recommended that transfer from Stage III of 395 feet be approved.

W. D. McMillan

WDM:jg

Attach.

cc: 9
Idm-8967
Barnhusen
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE

FOUR CORNERS EXPLORATION COMPANY
IRVING RAPAPORT
FORREST FINCHER
BOX 116
GRANTS, NEW MEXICO
TEL. AT 7-4722

March 30, 1957

DMEA
DEPARTMENT OF THE INTERIOR
APR 4 - 1957
REGION III
DENVER, COLORADO

Mr. William Traver
Executive Orricer
DMEA Field Team

Dear Mr. Traver:

This is to inform you that the second stage of drilling on the Red Rock claims, Idm-E967, has been completed. The plug footage exceeded the contract limit by 723.0 feet, while the core footage was 193.5 feet below the contract allowance.

We request that the excess plug footage be deducted from stage III in the same manner as the excess in stage I was handled. We refer you to Exhibit "A", paragraph nine of the contract.

Sincerely yours,

Forrest Fincher

C.C. Mr. J. W. Hasler
Box 360
Grand Junction, Colo.

OFFICIAL FILE COPY
D M E A
RECEIVED APR 17 1957
DATE | INITIALS | CODE

224 New Customhouse
Denver 2, Colorado

April 12, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED APR 15 1957

DATE	INITIALS	CODE
4/15	C	220
4/16	[illegible]	800
4/29	[illegible]	700

Messrs. F. O. Manol and Irving Rapaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: Docket DMEA-3854 (Uranium)
Contract Idm-E967
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Dear Sirs:

The completion period for all authorized and approved work under Contract Idm-E967, is May 17, 1957. If you anticipate that, for reasons beyond your control, all of the work outlined in the contract cannot be completed by May 17, 1957, you should immediately submit for consideration by the Government, the original and five copies of a request for extension of the completion period for such specific additional time as will be required.

Yours very truly,

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JDC:hh
cc: Chmn. Op. Comm. (2)
Harshman
Shaw (2)
Townsend
Corres.File,Reg. III
Chron.

220

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

February 4, 1957

Memorandum

To: Catherine Curtin, Statistics and Control Division

From: Hazel Berry, Operating Committee

Subject: Amendments to Contracts

Attached are the following docket copies of amendments to contracts which have been reviewed and approved by the commodity divisions and the Contract Administration and Audit Division.

These amendments do not require clearance by the Legal Division.

Four Corners Exploration Company, DMEA-3854, Idm-E967, Amendment No. 1, with attachment.

Crown Uranium Company, DMEA-3991, Idm-E1004, Amendment No. 1, with attachments.

American Leduc Uranium Corporation, DMEA-4041, Idm-E969, Amendment No. 1, with attachment.

Uranium Research and Development Company, DMEA-4082, Idm-E942, Amendment No. 3, with attachments.

Union Mines, Incorporated, DMEA-4136, Idm-E995, Amendment No. 4, with attachment.

Attachments-5

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

January 28, 1957

Memorandum

To: Hazel Berry, Operating Committee

From: Irene Z. Mainster, Rare & Misc. Metals Div.

Subject: Amendment to Contract

Mr. Ching has reviewed and approved Amendment No. 1 to Contract No. Idm-E967, dated January 16, 1957, Docket No. DMEA-3854, Four Corners Exploration Company. He has also indicated that no further review of the amendment is required by the Legal Division.

Irene Z. Mainster

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

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 25 1957

DATE	INITIALS	CODE
1·25	C	220
	657	130
		225

224 New Customhouse
Denver 2, Colorado

January 23, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3854 (Uranium), Contract No. Idm-E967, Four Corners Exploration Company (Red Rock claims), McKinley County, New Mexico

Enclosed are the original and two copies of Amendment No. 1 to Contract No. Idm-E967, which increases the period fixed within which work is to be completed to ten months from the date of the Contract and increases the maximum period for payment of royalty and lien for payment thereof to eleven years from the date of the Contract.

Also enclosed are four copies of the Operator's letter requesting the extension of the completion period.

Copies of the Amendment have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

W. M. Traver

W. M. Traver

Enclosures

FOUR CORNERS EXPLORATION COMPANY
IRVING RAPAPORT
FORREST FINCHER
BOX 116
GRANTS, NEW MEXICO
TEL. AT 7-4722

January 14, 1957

[illegible]
Acting Executive Officer
Field Operations Region III

DMEA
DEPARTMENT OF THE INTERIOR
JAN 15 1957
REGION III
DENVER, COLORADO

Dear Mr. [illegible]:

[illegible] January 17, 1957. To receive [illegible] Claims [illegible].

[illegible]

[illegible]

Very truly,

Forrest Fincher

Forrest Fincher

Official
EXTRA COPY
DMEA
RECEIVED JAN 25 1957

DATE	INITIALS	CODE

cc: [illegible]

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

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 18 1957

DATE	INITIALS	CODE
1-18	cw	220
1-18		8
		225

224 New Customhouse
Denver 2, Colorado

January 16, 1957

Mr. Forrest Fincher
Four Corners Exploration Company
Box 116
Grants, New Mexico

Re: Docket DMEA 3854 (Uranium)
Contract Idm-E967 Four Corners
Exploration Company
(Red Rock Claims) McKinley County,
New Mexico

Dear Mr. Fincher:

Enclosed are the original and five copies of proposed Amendment #1 to Contract Idm-E967 which we have prepared, as you were advised in our letter of January 15, 1957, to extend the period fixed for completion of the project work from six months to ten months from the date of the contract. The Amendment also extends the maximum period for payment of royalties and lien for payment thereof to 11 years from the date of the contract.

If the Amendment is satisfactory, all copies are to be signed by both partners as indicated, and all copies promptly returned to this office, and after signature of the Executive Officer, DMEA Field Team, Region III, for the Government, an executed copy of the Amendment will be returned to you.

Yours very truly,

Original signed by
W. M. TRAVER

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

Enclosures
JWT:ytl
cc
Chairman Op. Comm. (2)
Harshman
Shaw (2)
Hasler
Townsend
Corres. 3854
Chron.

OFFICIAL FILE COPY DMEA RECEIVED JAN 14 1957		
DATE	INITIALS	CODE
1/14		800
		225

224 New Customhouse
Denver 2, Colorado

January 10, 1957

Messrs. F. O. Manol and Irving Rapaport
Four Corners Exploration Company
Box 116
Grants, New Mexico

Re: Docket DMEA 3854 (Uranium)
Contract Idm-E967
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Gentlemen:

The completion date for all approved work under Contract Idm-E967 is January 17, 1957. If for reasons beyond your control you anticipate that all of the contract work will not be completed by January 17, 1957, you should immediately submit to this office, for consideration by the Government, the original and five copies of a request for extension of the contract completion date for such specific additional time as will be required.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer, DMEA
Field Team, Region III

JDC:ewa
cc: Chm. Op. Comm. (2)
Harshman
Shaw (2)
Hasler
Townsend
Corresp. E967
Chron.

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

RECEIVED DEC 28 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: Gamma-ray log interpretations

Enclosed are four copies each of gamma-ray log interpretations for the following DMEA contracts.

Mr. Chiney

1 copy here.

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, American 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

W. M. Traver

W. M. Traver

Four Corners Exploration Co. E 967
Red Rock 3 & 4 Claims
Sec. 24; T. 13 N.; R. 10 W.
DMEA DOCKET NO. 3854

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
B-3	347.0	None	208.0-338.0	318.0 - 319.1	1.1	260			<0.010	
				330.7 - 332.7	2.0	220			<0.005	
				332.7 - 334.5	1.8	380			<0.010	
B-5	370.0	None	270.0-370.0	Barren						
B-7	393.0	None	282.0-392.0	382.2 - 383.2	1.0	230			<0.005	
				385.1 - 386.0	0.9	530			0.015	
				386.0 - 386.5	0.5	300			<0.010	
B-9	406.0	None	274.0-404.0	396.9 - 398.1	1.2	460			0.011	
				398.1 - 400.0	1.9	200			<0.005	
				400.0 - 401.1	1.1	370			<0.010	
D-3	337.0	None	226.0-336.0	309.0 - 310.0	1.0	300			<0.010	
				328.3 - 329.3	1.0	760			0.024	
D-5	374.0	None	272.0-372.0	363.0 - 363.9	0.9	240			<0.005	
				365.1 - 366.3	1.2	240			<0.005	
				366.3 - 367.3	1.0	1040 (RF 3)			0.035	
D-7	401.0	None	302.0-402.0	386.2 - 387.5	1.3	240			<0.005	
				392.5 - 393.5	1.0	2,000			0.057	
D-9	421.0	None	270.0-420.0	404.5 - 405.8	1.3	270			<0.005	
				405.8 - 407.2	1.4	940			0.026	
				407.2 - 407.9	0.7	320			<0.010	
				411.0 - 411.7	0.7	850			0.035	
				411.7 - 414.0	2.3	260			<0.005	
				414.0 - 415.0	1.0	480			0.012	

RECEIVED DEC 28 1956 D.M.E.A.

* From top to bottom depths

Four Corners Exploration Co.
Red Rock Claims 3 & 4
Sec. 24; T. 13 N.; R. 10 W.
McKinley County, New Mexico
DMEA DOCKET NO. 3854

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-11	422.0	None	292.0-422.0	409.3 - 410.2	0.9	860			0.03	
				410.2 - 412.1	1.9	260			<0.005	
				212.1 - 413.1	1.0	740			0.028	
D-13	453.0	None	352.0-452.0	438.1 - 439.6	1.5	460			<0.010	
				442.0 - 442.5	0.5	920			0.047	
F-3	327.0	None	226.0-326.0	301.2 - 302.0	0.8	880			0.033	
				302.0 - 302.6	0.6	380			0.012	
				320.0 - 321.1	1.1	500			0.013	
F-5	371.0	None	254.0-364.0	330.7 - 331.6	0.9	260			<0.010	
				336.8 - 337.7	0.9	810			0.027	
				343.3 - 345.1	1.8	280			0.005	
				357.8 - 358.7	0.9	260			<0.010	
F-7	385.0	None	274.0-384.0	374.6 - 376.7	2.1	260			<0.005	
				378.6 - 379.9	1.3	600			0.014	
				379.9 - 380.6	0.7	260			<0.010	
F-9	393.0	None	254.0-376.0	364.1 - 365.7	1.6	320			<0.010	
				371.1 - 373.8	2.7	300			0.005	
				373.8 - 374.8	1.0	1,500			0.038	
				374.8 - 376.0	1.2	420			Started log in mineralized zone	
F-11	400.0	None	290.0-400.0	Barren						
F-13	425.0	None	294.0-424	Barren						

* From top to bottom depths

Four Corners Exploration Co.
Red Rock Claims 3 & 4
McKinley County, New Mexico
Sec. 24: T. 13 N.; R. 10 W.
DMEA DOCKET NO. 3854

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 $\%_eU_3O_8$	Remarks
H-3	311.0	None	210.0	310.0	283.4	284.4	1.0	480			0.013	
					384.4	288.8	4.4	220			<0.005	
H-5	347.0	None	212.0	332.0	321.0	321.9	0.9	250			<0.010	
					322.4	324.2	1.8	250			<0.005	
J-1	292.0	None	180.0	290.0	266.9	268.0	1.1	240			<0.005	
					269.0	270.2	1.2	430			<0.010	
					274.6	275.8	1.2	220			<0.005	
					276.8	277.8	1.0	400			<0.010	
J-3	305.0	None	204.0	304.0	291.4	293.1	1.7	400			<0.010	
					293.1	294.3	1.2	220			<0.005	
J-5	335.0	None	232.0	332.0	321.5	322.4	0.9	210			<0.005	
					323.8	325.3	1.5	280			<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

December 13, 1956

RECEIVED
DEC 17 1956
D.M.E.A.

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3854 (Uranium), Contract No. Idm-E9677
Four Corners Exploration Company (Red Rocks claims),
McKinley County, New Mexico

Enclosed are four copies of project work approval issued by the DMEA Field Team, Region III.

Also enclosed are three copies of the Operator's request for approval of the work and four copies of the joint memorandum from the examining engineer and geologist.

Copies of the work approval have been distributed to the Operator, the Finance Office, Region III, and to others 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

December 11, 1956

Mr. Irving Rapaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: Docket No. DMEA 3054 (Uranium)
Contract No. 14m-1967
Four Corners Exploration Company
(Red Rocks claims)
McKinley County, New Mexico

Dear Mr. Rapaport:

In reference to your request of November 6, 1956, and consistent with provisions in the Contract, this constitutes confirmation of verbal approval by the Government on December 3, 1956, for you to drill thirty-four (34) holes under Stage II of the Contract.

The locations of the thirty-four (34) approved holes are shown by the symbol X on the map entitled, "Figure 1. -- Map Showing Red Rock Nos. 3 and 4 Claims, Previously Drilled Holes, and Location of Proposed Stage II Drill Holes, Four Corners Exploration Co., and Glen D. Williams, McKinley County, New Mexico," which is attached hereto and made a part of this confirmation of work approval.

The locations of the holes are as shown on the map attached to your request, except that holes I-2 and 8-2 will be omitted, and instead, hole 8-6 will be drilled.

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

Very truly yours,

DMEA Field Team, Region III

W. H. Traver

W. H. Traver

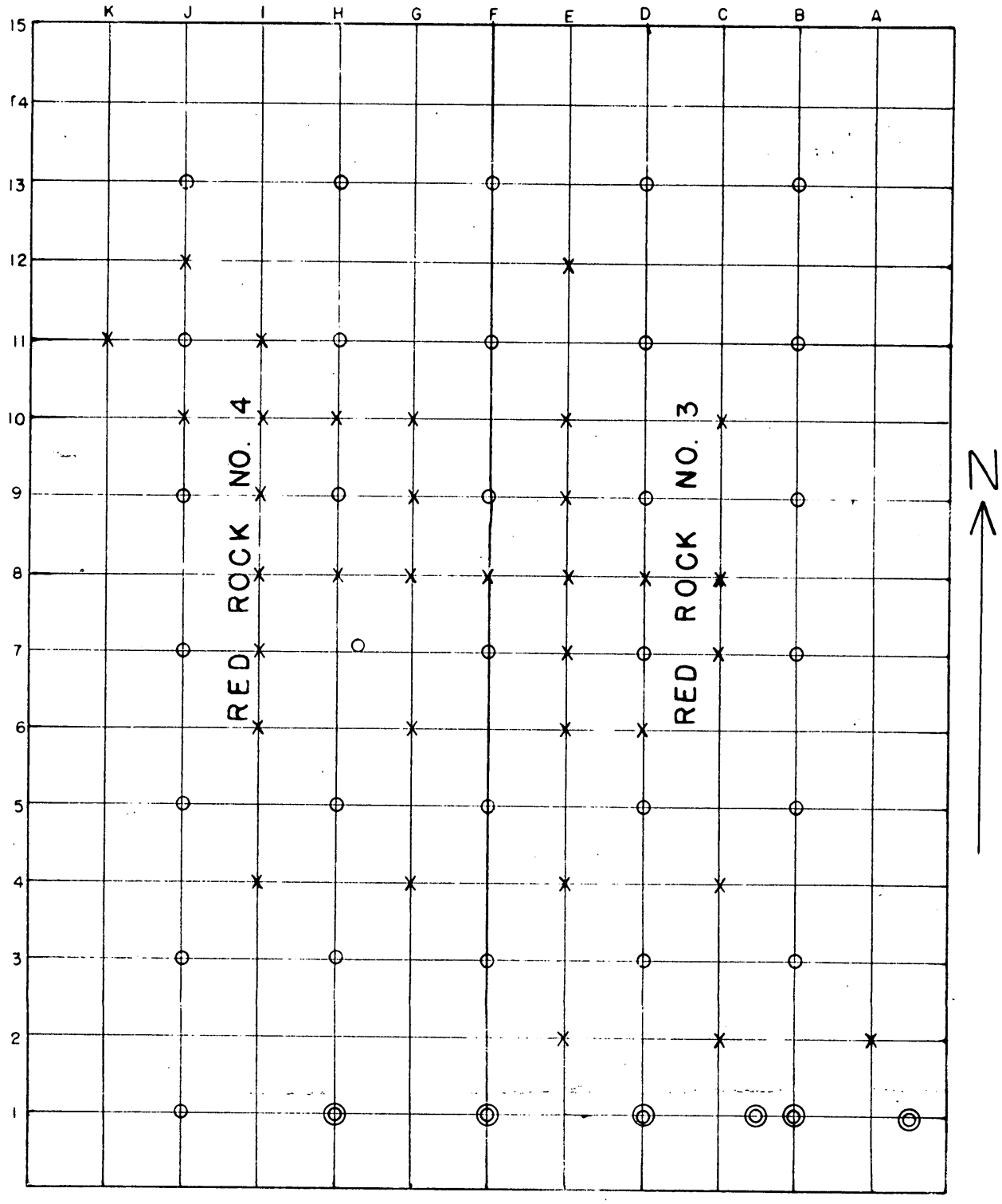
E. N. Hawkinson

E. N. Hawkinson

JWT:prl
cc: Chairman, Op. Comm. (4)
Finance Office, Reg. III
Amendment file, Reg. III
Hawkinson
Shaw (2)
Hasler
Townsend
Carras. file
Chron.

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DECEMBER 1956 Contract Idm-E967 DOCKET 3854



200 0 600 FEET

EXPLANATION

◎ HOLES DRILLED BY APPLICANT

○ LOCATION OF STAGE I DRILL HOLE

× LOCATION OF PROPOSED STAGE II DRILL HOLE

FIGURE 1.--MAP SHOWING RED ROCK NOS. 3 AND 4 CLAIMS, PREVIOUSLY DRILLED HOLES, AND LOCATION OF PROPOSED STAGE II DRILL HOLES, FOUR CORNERS EXPLORATION CO., AND GLEN D. WILLIAMS, MCKINLEY COUNTY, NEW MEXICO.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 300
Grand Junction, Colorado

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
DEC 10 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

December 7, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: J. William Mayler
W. H. Hornbaker
John F. Shaw

From: Howard F. Albee
M. H. Salsbury

Subject: Request for stage II drilling, Docket DMEA 3054 (Uranium), contract Ida-A 967, Four Corners Exploration Company (Red Rock claims), McKinley County, New Mexico.

The Operator has requested 35 stage II drill holes. Stage I drilling has been completed and shows widespread uranium mineralization associated with pyrite, barite, and marcasite in a favorable thickness of limestone host rock. Structure contours at the base of the Todilto limestone show synclinal structures in the formation.

The combination of the above factors indicates that further drilling is desirable. Mineralized rock in the Todilto limestone, generally, has never proved significant unless it is associated with synclinal structures. Many of these folds are tight and narrow and therefore may not be picked up on the 200-foot spacing designated in the stage I drilling. Nevertheless, as no folds are indicated in the southern part of Red Rock No. 4, it is recommended that the proposed holes at coordinates I-2 and G-2 be omitted and one hole at coordinates G-6 be drilled.

The requested stage II drilling, with the above changes, is recommended.

Enclosed are 24 copies of Figure 1 showing the location of the recommended drill holes.

Howard F. Albee
Howard F. Albee,
Geological Survey

M. H. Salsbury
M. H. Salsbury,
Bureau of Mines

DMEA
DEPARTMENT OF THE INTERIOR
DEC 11 1956
REGION III
DENVER, COLORADO

HFA/mlr

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20
Denver Federal Center
Denver 2, Colorado
November 27, 1956

DMEA
DEPARTMENT OF THE INTERIOR
NOV 28 1956
REGION III
DENVER, COLORADO

REGION III

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Supervising Mining Engineer

Subject: Proposed second stage drilling, Four Corners Exploration Co., Docket DMEA 3854, Contract Idm-E967

We enclose four copies of proposal for second stage drilling and four copies of maps pertaining thereto. Five copies of each were received and one copy of proposal and map is being retained for our files.

JOHN F. SHAW

John F. Shaw

Enclosures

cc 9
Idm-E967
Chron

/ph

MANOL
IRVING RAPAPORT

FOUR CORNERS EXPLORATION COMPANY

205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

RECEIVED DEC 17 1956 DALLAS

December 6, 1956

Ian-1967
Docket 3054

PROPOSED SECOND STAGE

First stage drilling on the Red Rock Claims has shown the presence of widespread uranium mineralization, synclinal structures, the gangue minerals pyrite, barite, and marcasite associated with pitchblende, and a favorable average thickness of limestone.

It is proposed that the 35 allowable holes of second stage be spaced on 100 foot centers and be drilled in areas of favorability as defined by the above criteria. (see map)

In selecting the holes to be drilled an attempt has been made to place holes where both uranium and gangue mineralization occur within synclinal structures. However, it is difficult to place most of holes on the uranium mineralization detected by the drilling of a 200 grid. The nature of uranium occurrences in limestone is such that holes of mineralization often do not extend more than a few feet from ore deposits. Ore stems are bodies are also usually quite narrow and tortuous in form despite their thick and high grade character. It is impossible that a hole on a 200 foot grid would penetrate the ore body proper.

It is hoped that some of the second stage holes will penetrate ore and that a trend can be established which will lead to the blocking out of a significant ore body.

The proposed position of second stage holes are plotted upon the accompanying map.

Irving Rapaport

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

224 New Customhouse
Denver 2, Colorado

November 29, 1956

Mr. Irving Rapaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: Docket DMEA-3854 (Uranium)
Contract Idm-E967
Four Corners Exploration Co.
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Rapaport:

Form MF-104, Operator's Monthly Report and Voucher for October, 1956, has been received in this office and is being processed for payment. The following deductions have been made.

Amount Disallowed

The contract stipulated that drill holes are to be bottomed 5 feet below the Todilto limestone-Entrada sandstone contact. During October, 1956, 5 holes were drilled in excess of 5 feet below this contact, therefore the cost of the excess core footage is disallowed as follows

Hole No.	Excess Core Footage
B-13	5
H-7	4
H-11	2
J-13	5
J-11	5
Total	21

Amount Withheld

An amount of $500.00 is withheld pending possible additional work under the contract. If additional work is not approved by the Government and performed by your company, the amount of $500.00 shall continue to be held pending resolution of matters relative to closing the account, which includes

1. Rendering to the Government a final report in conformance with Article 5 (c) of the contract form.

2. Release to this office of a Report of Review of contract expenditures by the Contract Administration and Audit Division, DMEA.

Very truly yours,

Original signed by
W. M. TRAVER

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

JDC:jy
cc: Chm. Op. Comm. (2)
Harshman
Shaw (2)
Townsend
Corresp. E967
Chron.

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

224 New Customhouse
Denver 2, Colorado

November 26, 1956

RECEIVED NOV 29 1956 D.M.E.A.

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3854 (Uranium), Contract No. Idm-E967, Four Corners Exploration Company (Red Rock claims), McKinley County, New Mexico

Enclosed are four copies of approval from the DMEA Field Team, Region III, to transfer necessary additional non-core footage and funds from Stage III to Stage I to permit completion of the thirty-one (31) Stage I holes to their stated objectives.

Also enclosed are four sets of data relative to the transfer of drilling footage.

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

November 23, 1956

Mr. Irving Rapaport
Four Corners Exploration Company
205 Petroleum Building
Grand Junction, Colorado

Re: Docket No. DMEA 3854 (Uranium)
Contract No. Idm-E967
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Dear Mr. Rapaport:

In reference to your request of November 5, 1956, and consistent with provisions in the Contract, this constitutes the Government's approval to transfer not to exceed 663 feet of non-core drilling footage and appropriate funds from Stage III to Stage I to permit completion of the thirty-one (31) holes to the stated objectives.

The footage and funds provided under Stage III for non-core drilling will be decreased an amount equal to that transferred to and used under Stage I.

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

Very truly yours,

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

JWT:prl

cc: Chairman, Op. Comm. (4)
Finance Office, Reg. III
Amendment file, Reg. III
Harshman
Shaw (2)
Hasler
Townsend
Corres. file
Chron.

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

RECEIVED NOV 29 1956 D.M.E.A.

224 New Customhouse
Denver 2, Colorado

November 26, 1956

Mr. Irving Rapaport
Four Corners Exploration Company
805 Petroleum Building
Grand Junction, Colorado

Re: Docket No. DMEA 3054 (Uranium)
Contract No. Um-2967
Four Corners Exploration Company
(Red Rock claims)
McKinley County, New Mexico

Dear Mr. Rapaport:

Enclosed is approval from the DMEA Field Team, Region III, to transfer not to exceed 663 feet of non-core drilling footage and appropriate funds from Stage III to Stage I.

The amount of footage for transfer was arrived at on the following basis:

Total footage reported as necessary for Stage I	11,783.5 feet
Allowed by Contract	11,100.0 feet
Difference	683.5 feet
October reported footage to be disallowed	21.0 feet
Balance	662.5 feet
Maximum additional footage needed	663.0 feet.

Very truly yours,

Original signed by
W. M. TRAVER

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

JWT:prl
cc: Chairman, Op. Comm. (4)
Marshman
Shaw (2)
Bailer
Townsend
Corres. file
Chron.

REGION III

Memorandum

Building 20
Denver Federal Center
Denver 2, Colorado
November 20, 1956

DMEA
DEPARTMENT OF THE INTERIOR
NOV 22 1956
REGION III
DENVER, COLORADO

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: D. E. Redmon

Subject: Docket DMEA 3854 (Uranium) Contract Idm-2967, Four Corners Exploration Company (Red Rock mining claims Nos. 3 and 4, Sec. 24, T. 13 N., R. 10 W., NMPM) McKinley County, New Mexico. Transfer of drilling footage to stage I from stage III.

The operator requests a transfer of 783.5 feet of drilling to stage I from stage III as authorized in the contract. This footage transfer request is arithmetically in error.

Corrected footage transfer request:

Month	Holes	Footage drilled Noncore	Footage drilled Core	Core Disallowed	Core Allowed	Total Allowed
Sept.	12	3800.5	374.0	12.5	361.5	4162.0
Oct.	19	7072.0	549.5	21.0	528.5	7600.5
Total	31	10,872.5	923.5	33.5	890.0	11,762.5
Contract Allowed	31	10,000.0			1100.0	11,100.0
Difference	0	872.5			-210.0	662.5

Excess noncore drilling----------872.5 feet
Allowable core drilling not used--210.0 feet
Net excess over contract----------662.5 feet

It is believed that the request should be for a transfer of 662.5 feet of noncore drilling to stage I from stage III, and crediting the unused core-bit footage to noncore-bit footage at noncore rate. The excess noncore footage was used to reach the objective of stage I drilling. It is recommended that 662.5 feet of noncore drilling be transferred to stage I and deducted from stage III. Stage III noncore footage would then be 6117.5 feet.

D. E. Redmon
Mining Engineer

cc: 9
Idm-2967
Chron

F. O. MANOL
IRVING RAPAPORT

FOUR CORNERS EXPLORATION COMPANY
205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

RECEIVED
NOV 23 1956
DMEA

November 5, 1956

Mr. John F. Shaw
U.S. Bureau of Mines
Room 137, Bldg. 20
Denver Federal Center
Denver 2, Colorado

Re: Red Rock Claims #3 & #4
Docket DMEA 3854 (Uranium)
Contract Idm-E967

Dear Sir:

A total of 11,783.5 feet of hole, exclusive of the 12.5 feet of core disallowed September, has been required to complete Stage 1.

Under paragraph 1 of page 2, Exhibit A of Contract Idm-E967, we request that the 783.5 feet of drilling in excess of the 11,000 foot contract estimate for Stage I be deducted from Stage III..

Actually this authorization involves an increase of only $283.22 above the contract estimate as less coring was done than anticipated. The original computation of depth of hole based on an assumed dip was, of course, an approximation.

Sincerely,

Irving Rapaport

12-12-56

RECEIVED DEC 10 1956 D.M.E.A.

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

[redacted]

FINAL DISTRIBUTION
MADE DEC 6 1956

Date: [redacted]
Payee's Reference: [redacted]

[redacted]

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ [redacted]

Difference $ [redacted]

Amount Approved $ [redacted]

The reason for the difference was due to:

[redacted]

[redacted]

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

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

224 New Customhouse
Denver 2, Colorado

November 29, 1956

RECEIVED DEC 10 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3854 (Uranium) Contract Idm-E967, Four Corners Exploration Company (Red Rock claims 3 and 4) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of October, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Operator's Narrative Report, and Engineer's Report for the above period.

Except as otherwise noted below, it is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made on the following basis, contingent on your verification of arithmetical accuracy within the report.

Disallowance, Core Footage

The contract stipulates that drill holes are to be bottomed 5 feet below the Todilto limestone-Entrada sandstone contact. During October, 1956 five holes were drilled in excess of 5 feet beyond the Todilto limestone-Entrada sandstone contact, therefore the excess drilling is disallowed as follows

Hole No.	Excess Core Footage
B-13	5
H-7	4
H-11	2
J-13	5
J-11	5
Total	21

Amount to be disallowed, the cost of 21 feet of core drilling at $3.90 per foot - - - - - - - - - - - - - - - - - - $81.90

Amount to be withheld

Stage I work has been completed, therefore withhold an amount of $500.00 pending possible additional work. If additional work is not performed under the contract, continue to hold this amount pending resolution of matters relative to closing the account. Stage I work has been completed.

Reconciliation with Amount Reported on Form MF-104 for October, 1956

Amount reported on Form MF-104 for Oct., 1956 - - -	$10,997.05
Amount to be disallowed - - - - - - - - - - - - - - - - - -	81.90
Total accepted cost for October, 1956 - - - - - - - - - -	$10,915.15
Government participation at 75 percent - - - - - - - - -	$ 8,186.36
Amount to be withheld - - - - - - - - - - - - - - - - - - -	500.00
Recommended payment to the Operator - - - - - - - - - -	$ 7,686.36

Remarks

Date of Report - - - - - - - - - - - - November 5, 1956
Date Received in Field Office - - - November 13, 1956
Date Received in Region Office - - November 27, 1956

Original signed by
W. M. TRAVER

W. M. Traver

Enclosures
JDC:jy
cc: MF-104 File E967
Chm. Op. Comm. (2)
Shaw (2)
Harshman) w/copy engr's report
Townsend) Chron.

REGION III

Memorandum

Building 20
Denver Federal Center
Denver 2, Colorado
November 23, 1956

DMEA
DEPARTMENT OF THE INTERIOR
NOV 27 1956
REGION III
DENVER, COLORADO

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: D. E. Redmon

Subject: Docket DMEA 3854 (Uranium) Contract Idm-E967, Four Corners Exploration Company (Red Rock mining claims Nos. 3 and 4, Sec. 24, T. 13 N., R. 10 W., NMPM) McKinley County, New Mexico. —Progress report for October 1956.

An inspection of completion of stage I was made November 6, 1956, by D. E. Redmon, Bureau of Mines, accompanied by F. Fischer, company geologist.

Four Corners Exploration Company driller's logs show 7072 feet of noncore-bit drilling and 549.5 feet of core-bit drilling, or a total of 7621.5 feet in 19 holes. This completes the 31 authorized stage I holes.

Page 1, paragraph 2, Exhibit A of contract specifies that holes shall be bottomed five feet below the contact between the Todilto limestone and the Entrada sandstone.

Holes B-9, B-11, D-5, D-9, D-11, D-13, F-9, F-11, F-13, H-5, H-9, H-13, J-7, J-9 penetrated the Entrada sandstone 5 feet or less, but to all intents and purposes have provided the necessary information and should be allowed.

Five holes penetrated the Entrada sandstone more than five feet as follows:

Hole No.	Entrada core	Excess core
B-13	10 feet	5 feet
H-7	9	4
H-11	7	2
J-13	10	5
J-11	10	5
Total	46 feet	21 feet

It is recommended that 21 feet of core drilling be disallowed.

Claim for payment of 4 assays was supported by assay certificate as follows:

Sample	Interval	U_3O_8 percent
F-9	375-375.6	0.226
F-9	387-388	0.272
F-9	388-388.35	0.017
J-11	376.5-377.5	0.117

One copy of assay certificate is retained in this office.

Allowable stage I costs for October are as follows:

Noncore drilling 7072.0 feet at $1.25 per foot	$8,840.00
Core-bit drilling, 549.5 feet reported (disallow 21 feet) 528.5 feet at $3.90 per foot	2,061.15
4 chemical analyses at $3.50 each	14.00
Total allowed	$10,915.15

Government participation at 75 percent would be $8,186.36.

Stage I drilling was completed as follows:

Month	Holes	Footage Drilled Noncore	Footage Drilled Core	Core Disallowed	Core Allowed	Total Allowed
Sept.	12	3800.5	374.0	12.5	361.5	4162.0
Oct.	19	7072.0	549.5	21.0	528.5	7600.5
Total	31	10872.5	923.5	33.5	890.0	11762.5
Contract Allowed	31	10000.0			1100.0	11100.0
Difference	0	872.5			210.0	662.5

Excess noncore drilling——872.5 feet
Allowable core drilling not used—210.0 feet
Net excess over contract——662.5 feet

If the 210 feet of unused core bit footage is credited to noncore footage at noncore rate, then a transfer of 662.5 feet of noncore footage from stage III to stage I can be made, as allowed by the contract. Remaining stage III noncore drilling would then be 6117.5 feet.

Stage I costs:

Bulldozing, 30 hours at $12.50 per hour	$375.00
Rossere drilling, 10,872.5 feet at $1.25 per foot	13,590.62
Core drilling, 890 feet at $3.90 per foot	3,471.00
Stage I costs (less analyses)	$17,436.62
4 analyses at $3.50 each	14.00
Total Stage I costs	$17,450.62

Holes numbered J-11 and F-9 contained significant uranium mineralization. A request for stage II drilling will probably be submitted.

Payment of 75 percent of the allowed October costs or $8,186.36 is recommended.

The driller's logs and a copy of the lithologic logs are retained at this office.

D. E. Redmon
Mining Engineer

DER:sh
Enc.
cc: 6
Idm-2967
Chron

Form MT-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1956 Docket No. DMEA 3054 Contract No. Idm-5967
Operator's Name Four Corners Exploration Company Minerals Uranium
Address Box 116, Grants, New Mexico
Contract Amount, $ 48,424.00 Government Participation: 75 % Amount, $ 36,318.000

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Plug	8,840.00	4,750.62	13,590.62			
Bulldozing		375.00	375.00			
~~Crosscutting~~ Coring	2,143.05	1,400.85	3,553.90			
~~Drifting~~ Assays	14.00		14.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	~~10,983.05~~ 10,997.05	~~6,535.47~~	~~17,518.52~~ 17,532.52	10,915.15	6,535.47	17,450.62

RECEIVED DEC 10 1956 DMEA

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 11-5-56 *Payee Four Corners Exploration Co.
Per [signature] Title Owner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:
$ 7686.36
Signature [signature]
(Authorized Certifying Officer)
Date 11/30/56 Vou. No. DMA 57-61
(See other side)

Note: Withhold $500.00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. F-967 in accordance with the terms of the contract.

Signature A. E. Redmond 8/18/36 Title Min. Engr. Date Nov. 26, 1956

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Maver Title Executive Officer Date NOV 29 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 6 Docket No. DMEA 3854 Contract No. Idm-E967
Operator's Name Four Corners Exploration Co. Minerals Uranium
Address Box 116, Grants, New Mexico

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	foot	2,143.05	549.5	3,552.90*	911	3.00		
Plug	foot	8,840.00	7072	13,590.62	10,872.5	1.25		
Churn								
Auger								
~~Stripping~~ Assays	assay	14.00	4	14.00		3.50		
Trenching								
Test Pits	hour			375.00	30	12.50		
Roads and Trails								
Total Distributed Costs		~~10,983.05~~ 10,997.05	7,625.5	~~17,518.52~~ 17,532.52				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		~~10,983.05~~ 10,997.05		~~17,518.52~~ 17,532.52				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date Nov. 5, 1956 Operator Four Corners Exploration

Per [signature] Title Owner

Remarks: * The 12.5 feet of core disallowed September have been deducted from the above figure.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only) W. E. Red[illegible]

RECEIVED DEC 10 1956 D.M.E.A.

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

P. O. MANOL
IRVING RAPAPORT

FOUR CORNERS EXPLORATION COMPANY
205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

November 5, 1956

Narrative Report For
October, 1956

Idm-E967
Docket 3854

During the month of October a second Failing 1500 drill was moved onto the Red Rock Claims and the first stage of drilling was completed the 27th of October.

Methods Employed

Both rigs employed were Failing 1500 rotaries with hydraulic pull-downs. All holes were plugged to a point determined to be the top of the limestone with 4½" Hawthorne finger bits and then cored to the bottom of the hole with 3 5/8" double tube, ball-bearing core barrels. Compressed air was used as a circulating medium except where circulation losses dictated the use of drilling mud. Bottom was declared when several feet of what was obviously Entrada sandstone was penetrated. Occassionally a few feet in excess of the five foot contract allowable were cored when the Entrada happened to be especially hard and limey. There is, of course, no objection to the disallowance of this excess footage.

All core was boxed and stored after graphic, detailled lithologic logs were prepared on acetate. All holes were logged with a carefully calibrated Babbel deep hole gamma ray logger.

Core recovery in limestone was excellent averaging about 95%.

Geologic Evaluation of First Stage Drilling

The results obtained by drilling the 31 authorized first stage holes are considered favorable. Eighty four percent of the holes revealled some degree of uranium mineralization. Several of the cores, notably those from F-9, H-9, J-11, and D-7, contain from faiF to good uranium mineralization.

Two other guides to ore which we have found to equal or exceed uranium mineralization in locallizing the search for ore are structure and the intensity of associated mineralization.

Two definite synclines have been delineated on the Red Rock Claims. The axis of the larger structure lies roughly along the C line and a smaller syncline may be observed to lie on the H line between the 400 and 900 zone. (see map) This type of structure has been found to be the site of deposition of virtually all limestone ore bodies. This conclusion is confirmed by detailed study of approximately thirty ore bodies in this vicinity.

P. O. HANOL
IRVING RAPAPORT

FOUR CORNERS EXPLORATION COMPANY
205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

The other significant factor is the presence in abundance of the gange suite, barite-pyrite-marcasite, that was found in association with pitchblende in holes J-11, E-9, and F-9, all of which holes are either in ore on the flanks of the synclinal structures. These gangue minerals have been found to be sharply confined to the significant uranium deposits in limestone in the Grants District.

The ore bodies of the Todilto formation seem to occur in areas of thicker limestone. The average thickness of limestone on the Red Rock Claims is a favorable 25 feet. (see map)

Irving Rapaport

DRILL HOLE TABULATION, RED ROCK CLAIMS, OCTOBER 1956

Hole No.	Plug	Core	Depth	Mineralization From	To	Gamma Value
J-7	329	25	354	344	345	trace
				348	349	.04% U_3O_8
J-9	345	22.5	367.5			nil
J-11	356	40	396	367	372	.05
				376-377		.12
				380	382	.04
J-13	390	39	429	403	404	trace
H-5	321	26	347	338		.02
H-7	338	30	368	340	343	trace
				348	351	trace
H-9	345	30	375	365	365.5	.05
H-11	366	30	396	368	368.5	trace
H-13	383	31	414	386	387	trace
				407	409	.04
F-9	367	26	393	373	380	.03
				380	383	.02
				386	387	.06
				387	389	.21
F-11	373	27	400	384	385	trace
F-13	400	25	425			nil
D-~~11~~5	345	29	374	366	368	trace
				368	370	.03
D-9	392	29	421	406	409	.02
				409	411	trace
				411	413	.02
				415	417	.01
D-11	396	26	422	413	417	.04
D-13	426	27	453	429	432	trace
				441	442	.03
B-9	376	30	406	398.5	400	.03
				401	402.5	.02
B-11	405	26	431	424	424.5	trace
B-13	419	31	450			nil
Total	7,072	549.5	7,621.5			

Grants Assay Office and Laboratories

ASSAY CERTIFICATE

GRANTS, NEW MEXICO Nov 7 1956

Sample No.	U_3O_8	V_2O_5	Lime	Copper	Pb	Zn	OTHER	OTHER	
F-9	0.226								375-375.6
F-9	0.272								387-388.0
F-9	0.017								388-388.35
J-11	0.117								376.5-377.5
				4 assays at $4.00			16.00		
						Tax	.32		
							16.32		

J Gurney
Chemist

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

RECEIVED NOV 1 1956 D.M.E.A.

224 New Customhouse
Denver 2, Colorado

October 30, 1956

Mr. Irving Rapaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: Docket DMEA 3854 (Uranium)
Contract Idm-E967
Four Corners Exploration Company
Red Rock claims 3 and 4
McKinley County, New Mexico

Dear Mr. Rapaport:

Form MF-104, Operator's Monthly Report and Voucher for September, 1956, has been received in this office and is being processed for payment.

The contract stipulates that the drill holes are to be bottomed five feet below the contact between the Todilto limestone and the Entrada sandstone. During September, 1956, four holes were drilled in excess of five feet beyond the Todilto-Entrada contact, therefore the cost of excess core footage is disallowed as follows

Hole No.	Excess core footage
B-3	5.0
F-5	0.5
J-1	4.0
J-3	3.0
Total excess core footage disallowed	12.5

If you have any question regarding the disallowance, please feel free to contact this office.

Very truly yours,

Original signed by
W. M. TRAVER

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

JDC:jy
cc: Corresp. E967
Chm. Op. Comm. (2)
Shaw (2)
Harshman
Townsend
Chron.

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

RECEIVED
OCT 25 1956

224 New Customhouse
Denver 2, Colorado

October 23, 1956

Mr. Forrest Fincher, Geologist
Four Corners Exploration Company
Box 116
Grants, New Mexico

Re: Docket DMEA 3854 (Uranium)
Contract Idm-E967
Four Corners Exploration Company
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Fincher:

Your letter of October 2, 1956, whereby you forwarded your monthly report to Mr. John F. Shaw, has been referred to this office for reply. In your letter you ask if it is possible to obtain reimbursement for excess Stage I bulldozing in the event that some Stage II and Stage III bulldozing is not used.

There is no provision in the contract to permit excess Stage I bulldozing costs to be absorbed in either Stage II or Stage III. Therefore, it will not be possible for the Government to reimburse you for excess Stage I bulldozing costs at the end of the project, even though less bulldozing is required for Stages II and III than that set up in the contract.

Very truly yours,

W. M. TRAVER

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

JDC:jy
cc: Corresp. E967)
Chair. Op. Comm. (2)) w/copy of letter
Shaw (2)) dated 10/2/56
Townsend)
Chron.

9-543

FOUR CORNERS EXPLORATION COMPANY
200 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1770

MAIL ADDRESS
BOX 100, GRANTS, N. M.
BOX 20, FARMINGTON, COLO.

DMEA
OCT 22 1956
REGION I
DENVER, COLORADO

October 2, 19[illegible]

RECEIVED
RECEIVED OCT 25 1956
OCT 8 1956
Div. of Mineral Technology
BUREAU OF MINES
Denver Experiment Station
Denver, Colorado

Mr John F. Shaw
U.S. Bureau of Mines
Room 137, Bldg 20, Denver Federal Center
Denver 2, Colorado

Dear Mr Shaw:

Enclosed you will find:
a. Original and four copies MF-104.
b. " " " " MF-104A.
c. " " " " signed narative report. 4 copies and orig.
d. Five copies progress map.
e. Two copies drill hole lithologic logs.
f. One set original drillers logs.
g. Invoices for Bulldozer work.

Since stage one bulldozing exceeded allowance; is it possible to bill for excess at end of project if there are some stage II or stage III hours not used.

No

Sincerely yours,

Forrest Fincher

Forrest Fincher
Geologist

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

RECEIVED NOV 8 1956 D.M.E.A.

Administrative Audit Difference Statement

[illegible]

Date: [illegible]
Payee's
Reference: [illegible]

FINAL DISTRIBUTION

MADE NOV 6 1956

[illegible]

DMEA-3854

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ [illegible]

Difference $ [illegible]

Amount Approved $ [illegible]

The reason for the difference was due to:

[illegible]

[illegible]

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

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

224 New Customhouse
Denver 2, Colorado

October 29, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3854 (Uranium) Contract Idm-E967, Four Corners Exploration Company (Red Rock claims 3 and 4) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of September, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Operator's Narrative Report, and Engineer's Report for the above period.

Except as otherwise noted below it is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made to the Operator on the following basis, contingent on your verification of arithmetical accuracy within the report.

Disallowance, Core footage

The contract stipulates that the drill holes are to be bottomed 5 feet below the contact between the Todilto limestone and the Entrada sandstone. During September, 1956 four holes were drilled in excess of 5 feet beyond the Todilto-Entrada contact, therefore the cost of excess core footage is to be disallowed as follows

Hole No.	Excess core footage
B-3	5.0
F-5	0.5
J-1	4.0
J-3	3.0
Total excess core footage	12.5

Amount to be disallowed, the cost of 12 1/2 feet of core drilling at $3.90 per foot- - - - - - - - - - - - - - - - - -$48.75

Reconciliation with Amount Reported by the Operator on Form MF-104 for September, 1956

Amount reported on Form MF-104 for Sept., 1956- - - -	$6,584.22
Amount to be disallowed- - - - - - - - - - - - - - - - - -	48.75
Total accepted cost for September, 1956	$6,535.47
Government participation at 75 percent	$4,901.60

Remarks

Date of Report - - - - - - - - - - - - - - - October 2, 1956
Date Received in Field Office- - - - - - October 8, 1956
Date Received in Region Office- - - - - October 22, 1956

Original signed by
W. M. TRAVER

W. M. Traver

Enclosures

JDC:jy
cc: MF-104 File E967
Chm. Op. Comm. (2)
Shaw (2)
Harshman)
Townsend) w/copy engr's report
Chron.

REGION III

Memorandum

Building 20
Denver Federal Center
Denver 2, Colorado
October 19, 1956

RECEIVED
DEPARTMENT OF THE INTERIOR
OCT 22 1956
REGION III
DENVER, COLORADO

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: D. E. Redmon

Subject: Docket DMEA 3854 (Uranium) Contract Idm-E967, Four Corners Exploration Company (Red Rock mining claims Nos. 3 and 4, Sec. 24, T. 13 N., R. 10 W., NMPM) McKinley County, New Mexico --Progress report for September, 1956

An inspection of progress of stage I was made October 9, 1956, by W. D. McMillan, Bureau of Mines, accompanied by I. Rapaport and F. Fincher, company representatives.

Four Corners Exploration Company driller's logs show 3800.5 feet of non-core bit drilling and 374 feet of core bit drilling, or a total of 4174.5 feet.

Page 1, paragraph 2, Exhibit A of contract, specifies that the holes shall be bottomed five feet below the contact between the Todilto limestone and the Entrada sandstone.

Holes J-5, H-3, D-3, F-3, B-5, B-7, D-7, F-7 penetrated the Entrada sandstone less than five feet, but to all intents and purposes have provided the necessary information and should be allowed.

Four holes penetrated the Entrada sandstone more than five feet, as follows:

Hole No.		Entrada core	Excess
J-3		8 feet	3 feet
J-1		9 feet	4 feet
B-3		10 feet	5 feet
F-5		5.5 feet	0.5 feet
	Total	32.5 feet	12.5 feet

It is recommended that 12.5 feet of core drilling be disallowed.

Allowable Stage I costs are as follows:

Non-core drilling, 3800.5 feet at $1.25 a foot	$4750.63
Core bit drilling, 374 feet reported (disallow 12.5 feet) 361.5 feet at $3.90 a foot	1409.85
*Bulldozing - 30 hours at $12.50 a hour	375.00
TOTAL ALLOWED	$6535.48

*Operator reported 48 hours of bulldozing but charged 30 hours, the amount specified in contract for Stage I.

Payment of 75 percent of the above amount or $4901.61 is recommended.

The driller's logs and one copy of the stratigraphic logs are retained at this office.

D. E. Redmon
D. E. Redmon
Mining Engineer

cc: 6
Idm-E967
Chron

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED NOV 8 1956 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1956 Docket No. DMEA 3854 Contract No. DMA-E-0167
Operator's Name Four Corners Exploration Co. Minerals Uranium
Address Box 116, Grants, New Mexico
Contract Amount, $48,424.00 Government Participation: 75 % Amount, $36,318.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) ~~Independent~~ Short Form Contracts:						
Drilling Plug bit	4750.62	0	4750.62			
Bulldozing	375.00	0	375.00			
~~Crossing~~ Drilling	1458.60	0	1458.60			
Drifting Core						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	6584.22	0	6584.22	6,535.47	—	6,535.47

I certify that the above bill is correct and just and that payment therefor has not been received.

Date October 2, 1956 Payee Four Corners Expl. Co.

Per [signature] Title Owner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 4901.60

Signature [signature]
(Authorized Certifying Officer)

Date 10/31/56 Vou. No. DMA 57-63

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 967 in accordance with the terms of the contract.

Signature D. E. Redmon #490161 Title Min. Engr. Date Oct 19, 1956

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Carver Title Executive Officer Date OCT 29 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED
NOV 8 1956
D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 195 6 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1100	3.90 *
Churn	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10,000	1.25
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	[illegible]	375.00	30	375.00	30	12.50	30	12.50
Total Distributed Costs		[illegible]		[illegible]				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date October [illegible], 1956 Operator [illegible]

Per [illegible] Title Owner

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Remarks: * Authorized Stage I

(For Government use only) W. E. Redman

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

F. O. MANOL
IRVING RAPAPORT

FOUR CORNERS EXPLORATION COMPANY
205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

October 2, 1956

Ter-E-967
Docket 3554

Narrative Report

Preparation

During the month of August, 1956 the 31 authorized holes were surveyed in with transit and chain, thus carefully locating hole sites and securing accurate collar elevations.

Beginning the 20th of August and continuing into the first part of September drill sites were prepared. The amount of bulldozing required far exceeded the original estimate mostly due to the difficulties encountered in constructing roads thru dune sands and arroyos.

On September 14, a Failing "1500" rotary drill commenced drilling on hole J-3.

Methods Employed

The drill rig employed is a Failing "1500" rotary with a hydraulic pulldown. All holes are plugged to a point determined to be the top of the Todilto limestone with a 4½" Hawthorne finger bit and then cored to the bottom of the hole with a 3 5/8" double tube, ball bearing core barrel. Compressed air is used as a circulation medium. Bottom is declared when several feet of what is obviously entrada sandstone has been penetrated.

All cores boxed and stored after graphic, detailed lithologic logs have been prepared on acetate. All holes are logged with a carefully calibrated Gamma drill hole probe.

Core recovery in the limestone is excellent averaging better than 95%.

Results of September Drilling

The results obtained by drilling the 12 holes are considered good with 64% of the holes being mineralized. A factor considered to be more important than mineralization is the synclinal structure (see map) that is becoming apparent on the Red Rock 3. This is the type structure associated with ore bodies throughout the adjoining section 30 and section 34 T. 13N., R. 9W.

F. O. MANOL
IRVING RAPAPORT

FOUR CORNERS EXPLORATION COMPANY
205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

In addition to the structure contour map thicknesses of limestone ~~are~~ is also being carefully watched(see map).

Plans

The drilling of the 31 authorized 200' grid holes will continue during the month of October when a 2nd drilling "1500" will be employed.

Forrest Fincher Forrest Fincher
Geologist

F. O. MANOL
IRVING RAPAPORT

FOUR CORNERS EXPLORATION COMPANY

205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO

TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

Drill Hole Tabulation Chart

Hole No.	Plug	Core	Depth	Mineralization From	To	Inferred Value	Chem.
J-3	277	28	305	291	292.5	Trace	
				293	295	.01	
J-1	263	29	292	267.5	270	Trace	
				270.5	271	.03	
				276	277	Trace	
				277.5	278.5	.01	
J-5	309	26	335		Nil		
F-3	275	36	311	284.5	286	.015	
				289	291	Trace	
D-3	307	28	335	310.5	311.5	.01	
				327.5	329	Trace	
				329.5	331	.02	
F-3	299	28	327	301.5	303.5	.03	
				304	304.5	.01	
				321.5	322	.02	
L-3	317.5	30	347.5	331.5	332.5	Trace	
				333	335	.02	
B-5	342	28	370		Nil		
D-7	352	41	393	363.5	365	Trace	
				365.5	366.5	.01	
D-7	369	33	401	392	392.5	Trace	
				393	394	.05	
F-7	356	30	386	375.5	379	Trace	
				379.5	381	.03	
				371.5	382	Trace	
F-5	335	37	372	337.5	339	.03	
				345.5	347	.02	
				359.5	364.5	Trace	
Totals	3800.5	274	4174.5				

MINERAL DEPOSITS
DATA
RECEIVED
AUG 22 1956
U.S.
GEOLOGICAL SURVEY
DENVER, COLORADO

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

22h New Customhouse
Denver 2, Colorado

August 21, 1956

Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

RECEIVED
AUG 22 1956

Attention: Mr. Forrest Fincher, Geologist

Re: Docket DMEA 5854 (Uranium)
Contract DMe-3267
Four Corners Exploration Company
(Red Rock Claims)
McKinley County, New Mexico

Gentlemen:

Reference is made to the letter dated August 18, 1956, from Forrest Fincher, Geologist, wherein the Government's approval is requested for the relocation of holes J-9, J-7, J-5, N-5, and S-3 because of terrain conditions.

Your attention is directed to the provisions in the contract that specify Stage I holes are to be drilled on a 500-foot grid pattern and that except for one hole (Hole No. N-1) all outside holes are to be drilled not closer than 500 feet to the property boundaries.

You are authorized to change the locations of the holes as requested, maintaining as nearly as possible the required spacing as outlined in the contract.

Very truly yours,

DMEA Field Team, Region III

By W. M. Tracy
W. M. Tracy
Executive Officer

w/copy of Operator's letter

JMT:pvl
cc: Chairman, Op. Com. (3)
Finance Office, Reg.III
Amendment file, Reg.III
Bayhouse
Shaw (2)
Townsend
Curran. file
Chron.

FOUR CORNERS EXPLORATION COMPANY

~~CRAIGMONT & FAGET~~

~~GRAND JUNCTION, COLO~~ GRANTS NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

AU

Denver

Aug. 18, 1956

Mr. William Traver
224 New Customhouse
Denver, Colo.

Dear Mr. Traver

While staking holes on the Red Rock Claims located in the Grants district of New Mexico, DMEA Docket 3854 (Uranium) Contract Idm-E967, it was noted that several hole sites would require moveing a few feet from their present positions to make construction of drill sites possible. The terrain is of such nature that an occasional site falls in a very narrow rocky gully or on the edge or against the face of a cliff. In these cases it becomes necessary to move the location to allow room for the drill truck, compressor truck and auxiliary vehicles.

The following moves are requested:

J-9 - Offset 8'-10'

J-7 - Offset 15'-20' S.W.

J-5 Offset 10'-15' E.

H-5 Offset 20'-25' S.

B-3 Offset 20' E.

Sincerely yours
Forrest Fincher
Geologist

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

RECEIVED
AUG - 6 1956

224 New Customhouse
Denver 2, Colorado

August 1, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3854 (Uranium), Contract Idm-E967, Four Corners Exploration Company (Red Rock claim), McKinley County, New Mexico.

Enclosed are the following for Washington Office files:

1. The Government's, Division, and Docket copies of Exploration Project Contract Idm-E967, which was forwarded by your letter of July 17, 1956, for signature by the Applicant.

2. Two copies of the Operator's letter, dated July 30, 1956, by which the executed copies of the contract were returned to this office.

Copies were not included

3. Two copies of a letter from this office, dated August 1, 1956, by which we forwarded the Operator's copy of the contract, forms, and instructions relative to reporting on work performed under the contract.

W. M. Traver
W. M. Traver

Enclosures

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

RECEIVED
AUG - 6 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

August 1, 1956

Messrs. F. O. Manol
and Irving Rapaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: Docket DMEA 3854 (Uranium)
Contract Idm-E967
Four Corners Exploration Company
(Red Rock claim)
McKinley County, New Mexico

Gentlemen:

Enclosed herewith is your copy of Exploration Project Contract Idm-E967, Docket DMEA 3854.

Also enclosed are six copies of form MF-104, "Operator's Monthly Report and Voucher," and six copies of form MF-104A, "Operator's Unit Cost and Progress Report." At the end of the first calendar month after work is commenced, and monthly thereafter, you are required to submit the original and four copies of each form to Mr. John F. Shaw, U. S. Bureau of Mines, Room 137, Building 20, Denver Federal Center, Denver 2, Colorado.

Forms MF-104 and MF-104A are to be combined into five sets of one of each form, each set of the combined forms is to be accompanied by a map or sketch showing the location and extent of work performed; and a signed narrative report which describes the work performed, conditions encountered, and results of the work. The monthly accounting report will not be processed for reimbursement to you unless it is accompanied by a signed narrative report and other required or pertinent data. Additional copies of forms MF-104 and MF-104A will be forwarded to you each month on receipt of your report for the prior month.

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. H. Salsbury, U. S. Bureau of Mines,
Telephone, Grand Junction 3000, Extension 274.

Both men can be reached by mail at:

P. O. Box 560,
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, 284 New Customhouse, Denver 2, Colorado, for auditing and voucherring. 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 under the terms of the contract, reimbursement to you will be on the basis of a hole or holes completed to the objective, which has, or have, been drilled in compliance with conditions under the "General Provisions" section of Exhibit "A" of the contract and the special conditions pertaining to the drilling under each Stage. Therefore, your monthly report should include only such holes which are completed to that extent, and the required records made a part of your claim for reimbursement.

The contract is prepared on form MF-200A and under its provisions the work is to be performed at "Fixed Unit Costs," as outlined in Exhibit "A" of the contract, which will be the basis of reimbursement to you as units of work are completed and reported on forms MF-104 and MF-104A.

Your requests to this office for work approval, changes in the contract, or any other communication pertaining to operations under the contract, must be in writing, of which please supply the original and five copies, each copy complete with maps or other pertinent data.

The locations of holes to be drilled under Stage I are indicated on the map, "Figure 2," attached to the contract. Should conditions encountered necessitate or make desirable a 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 drilling. Otherwise, the drilling may not be acceptable for reimbursement to you under the terms of the contract.

Your attention is directed to the provision that work under both Stages II and III is contingent upon 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 work under a stage has been 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 sextuplicate, each copy complete with a map showing the locations of holes previously drilled and the locations of the holes you propose to drill under the next stage. Your request should be complete with drill logs, results of radiometric probing, chemical analyses, and any other pertinent data concerned with the prior work which will be of value to the Government in appraising the work performed under the prior stage.

You should anticipate a suspension of 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

JWT:prl
cc: Chairman, Op. Comm. (2)
Finance Office, Reg. III
Amendment file
Harshman
Shaw (2)
Essler
Townsend
Corres. file
Chron.

Docket

JUL 31 1956

Mr. W. M. Trower
Executive Officer
DMEA Field Team, Region III
234 New Customhouse Building
Denver 2, Colorado

Re: Docket DMEA-354 (Uranium)
Four Corners Exploration Company
Red Rock Claims
McKinley County, New Mexico

Docket DMEA-4101 (Uranium)
Four Corners Exploration Company
Mirida Claims
McKinley County, New Mexico

Dear Bill:

You will recall that on July 17 we forwarded to you the unsigned contracts on DMEA-354 and on last Friday, July 28, we forwarded unsigned contracts on DMEA-4101. You will note that Mr. Selfridge did not sponsor DMEA-4101.

The purpose of this letter is to inform you that after both contracts were in final form they provoked considerable discussion between George Selfridge, Frank Johnson, and the Division, and later myself. The principal point at issue was the authorization of offset holes at 50 ft., centers under Stage III.

Now, we have had many discussions on the subject of close-spaced drilling. I recall conversations with Government personnel when I was in Grand Junction during May 1955. George's report on his recent field trip indicates that the matter was discussed again on May 25 when you fellows stopped over at Grand Junction enroute to Salt Lake.

We can all think of cases where 50 ft. offsets are necessary to protect the Government's interests with respect to certification. In many instances, however, such practice falls out of the category of exploration drilling into the category of development drilling. If not, then in those cases where the 50 ft. offsets are to be 300-350 feet deep, and are required to definitively prove or disprove the target, it would appear that the target is just too small to justify the cost of the work.

The real object of this letter is to eliminate, so far as possible, any confusion in your mind which might result from our "talking one way and acting in another." The fact that we prepared the cited contracts with Stage III in accordance with the Field Team recommendations does not mean that we have abandoned our basic thinking with respect to 50 ft. offsets. On the contrary, I felt that the terms of the contracts provided ample protection to the Government, once the Field Team was clear as to our intentions. I did not wish to hold the cases here in Washington pending retyping of the exhibits and transmittal letters just at the time when I was trying to defend DMEA against criticism with respect to excessive processing time. You will note that both dockets have been pending since December 1955.

I have full confidence that the Field Team will carefully evaluate the results of Stages I and II before authorizing any work under Stage III, and will make such authorizations discretely to avoid the establishment of any "development drilling" precedent.

With kindest personal regards,

Sincerely yours,

s/ Mitt

Administrator

COMittendorf/fw
7/30/56
cc: Mails & Files (2)
Admr. Reading File
Region III
Rare Metals Div. (2)
Mr. Geehan
Mr. Kiilsgaard
Mr. Selfridge

Surname copy

700

Ching
Selfridge
Johnson
Hutchinson

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

JUL 27 1956

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

Re: Docket No. DMEA-3854 (Uranium)
Four Corners Exploration Company
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Traver:

Enclosed for your files are five Quitclaim Deeds, related to the subject property, executed by the following: Glenn D. Williams and Edith A. Williams; C. A. Derryberry and Avis Derryberry; Volton S. Tietjen and Thereesa Tietjen; Alfred Hutton; and J. T. Hutton and Parallee Hutton.

Sincerely yours,

George C. Selfridge
(By ey)

Chairman, Operating Committee

Enclosures

APPROVED:

P. W. Yopos (By ey)
Member, Bureau of Mines

N. E. Nelson (By ey)
Member, Geological Survey

MChing/gla
7-25-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Ching

R.C.

Surname copy

700

Ching
L L Knouse
F E Johnson

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

JUL 27 1956

Denny and Glascock
Attorneys and Counselors at Law
Gallup, New Mexico

Attention: Mr. H. S. Glascock

Re: Docket No. DMEA-3854 (Uranium)
Four Corners Exploration Company
Red Rock Claims
McKinley County, New Mexico

Gentlemen:

In accordance with the request contained in your letter of April 30, 1956, we are returning Abstracts of Title Nos. 4616 and 5355.

These abstracts were very useful in the processing of applications for exploration aid by Four Corners Exploration Company on both the Red Rock and Divide claims.

Sincerely yours,

F. L. Knouse, Acting Chief
Rare and Miscellaneous
Metals Division

Enclosure

MChing/gla
7-25-56
cc to: Admr.'s Reading File
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region III (2)

R. C.

7/23/56

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

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

July 19, 1956

RECEIVED
JUL 23 1956

Messrs. F. O. Hanel
and Irving Rapaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Re: Docket DMEA 3054 (Uranium)
Four Corners Exploration Company
(Red Rock Mining)
McKinley County, New Mexico -
Proposed Short Form Exploration
Project Contract IAm-2967

Gentlemen:

Enclosed are the Government's, Division, Docket, Finance Office, and Field Team copies of proposed Exploration Project Contract IAm-2967, 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 you, all copies are to be signed by both partners as indicated and all copies promptly returned to this office.

When the executed copies of the Contract are returned, please advise us the date on or before which work will begin, for our insertion under Article 1 of the Contract.

Upon return to 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 the work completed under the Contract.

In the event the Contract is not satisfactory to you, please promptly return all copies to this office with your comments.

Very truly yours,

W. M. TRAVER

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

cc: Four Corners Exploration Company
118 Main Street
Grand Junction, Colorado

Operating Committee (2)
Shaw (2)
Ensler
Townsend
Docket file
Chron.

Surname copy

700

B

Ching
Ellis
Chambers
Selfridge
Johnson
McKeadey

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

JUL 17 1956

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

Re: Docket No. DMEA-3854 (Uranium)
Four Corners Exploration Company
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed short-form contract between the Government and Four Corners Exploration Company, unsigned, undated, and unnumbered. The contract consists of Form MF-200A, Annex I, Exhibit "A," and map (Figure 2). Also enclosed are two extra copies each of Annex I, Exhibit "A," and map (Figure 2) for the use of the Field Team.

If you and the Operator find the contract satisfactory, it is ready for the signature of the Operator provided that a suitable final starting date is inserted under Article 1.

Please secure the signature of the Operator, but do not date the contract, and return all copies to this office for final execution by the Administrator.

The program recommended by the examiners has been modified in accordance with our letter of December 19, 1955, to Mr. Harshman.

A short-form contract was used because the Operator is a drilling contractor and intends to do the work itself, thus eliminating the possibility of independent contract drilling, full details are not available for a straight actual-cost contract, and the costs, as modified, appear reasonable.

The examiners' suggested costs have been modified as follows:

1. The unit cost for core drilling was reduced from $4.20 to $3.90 per foot to place it more in line with comparable contracts in this area. (See recommendation for neighboring Divide Claims, DMEA-4101).

RCL.

2. Since chemical analysis is for uranium only, the cost was reduced from $5.00 to $3.50 per sample.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

/s/ Robert W. Geehan

Member, Bureau of Mines (JHB)

Thor H. Kiilsgaard

Member, Geological Survey (JHB)

MChing/gla
7-13-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JCHosted, Rm. 3210, GSA
Code 700
Mr. Ching

P.S. In rechecking our accounts today, we find sufficient unobligated funds to permit the execution of this contract. The original and all copies have, therefore, been signed by the Government and numbered and dated in the usual manner.

Ellis

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

July 13, 1956

Memorandum

To: The Files

From: Michael Ching, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Proposed Contract
Docket No. DMEA-3854 (Uranium)
Four Corners Exploration Company
Red Rock Claims
McKinley County, New Mexico

The drilling program under the proposed contract has been modified from that of the examiners in accordance with the Operating Committee's letter of December 19, 1955, to the Acting Executive Officer, Region III.

A short-form contract was used after consultation with Mr. F. E. Johnson and Mr. Jay Chambers for the following reasons: (a) the proposed costs are quite reasonable and, from an over-all viewpoint, are considerably lower than the costs allowed under comparable contracts in this area; (b) the Applicant is a drilling contractor and intends to do the drilling itself, thus eliminating the possibility of independent contracts. Since details of the drilling equipment to be used and corresponding depreciation charges are not available, and since this application has been subject to extraordinary delays since its presentation on May 26, 1955, a short-form contract with lower than average costs was considered in order.

The unit costs used are based upon figures suggested in the Report of Examination except in the case of core drilling and chemical analyses. The examiners' cost for core drilling appears high in comparison with other contract costs in this area and with the cost of the non-core drilling. It was therefore reduced by $.30 per foot. The cost of chemical analysis was reduced from $5.00 to $3.50 per sample since the analysis is for uranium only. Following is a comparison of costs as suggested by the examiners and as used in the contract:

	Examiners' Costs	Costs Used
Per foot non-core drilling	$1.09	$1.09
Incidental costs per foot non-core drilling	0.16	0.16
Per foot core drilling	3.97 — ?	3.74
Incidental costs per foot core drilling	0.23	0.16
Unit cost for non-core drilling	1.25	1.25
Unit cost for core drilling	4.20 — ?	3.90
Per sample analyzed	5.00	3.50
Per hour bulldozing	12.50	12.50

1.09
.16
1.25

1.09
2.00
.16
3.35

Michael Ching

Michael Ching

700

FILE COPY

Surname: Chung
Ellis

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

July 3, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

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

Subject: Docket No. DMEA-3854 (Uranium)
Four Corners Exploration Company
Red Rock Claims
Mc Kinley County, New Mexico

Will you kindly prepare a short-form contract between the Government and Four Corners Exploration Company in accordance with the attached draft.

The map (Figure 2) is in the process of being photostated.

The required number of copies of the Consent to Lien and Subordination Agreement, referred to in the contract form, are attached.

Ernest Wm. Ellis

Enclosures

MChing/izm 7-3-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File

6/27/56

FOUR CORNERS EXPLORATION COMPANY
1118 MAIN STREET
GRAND JUNCTION, COLO
BOX 116
GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

RECEIVED
JUN 27 1956

June 25, 1956

Mr. Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metal Division
Defense Minerals Exploration Administration
U.S. Department of Interior
Washington 25, D.C.

Re: Docket No. D.M.E.A. - 3854 (uranium)
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Ellis:

In reply to your letter of May 18, 1956 the following narrative account of the relationship existing between the Four Corners Exploration Co., the Gulf Uranium and Development Co., and Glenn D. Williams is presented.

1) The claims were originally staked by a group headed by Glenn Williams. Mr. Williams obtained a lease on the claims and in return presented royalties to the rest of the group.

2) The Four Corners Exploration Co. obtained a 50% interest in the property for the performance of 5,000 feet of drilling on some other claims in the Grants District for Mr. Williams.

3) Glenn Williams subsequently assigned his remaining 50% interest to the Gulf Uranium and Development Co. of which he is vice-president.

The Four Corners Exploration Co. has agreed to bear the full 25% operator's obligation of this proposed exploration program.

Enclosed are the original and six copies of Gulf's Consent to Lien and a letter expressing their full accord in the proposed exploration.

Enclosed as well are the original and six copies of the Subordination Agreement executed by the royalty holders.

Delay was occassioned by the fact that two of the royalty owners were on vacation and could not be contacted immediately.

Sincerely,

I. Rapaport

GULF URANIUM AND DEVELOPMENT CO.

El Rancho Hotel

Gallup, New Mexico

RECEIVED
JUN 27 1956

May 25, 1956

Mr. Irving Rapaport,
Four Corners Exploration Co.,
P. O. Box 101,
Grants, New Mexico.

Dear Mr. Rapaport:

We have executed and are returning herewith the eight copies of "consent to lien" forms in connection with your application for a D.M.E.A. loan for exploration purposes on the Red Rock claims.

As co-owners of the Red Rock #3 and #4 Claims, we are fully in accord with the proposed exploration under your arrangements to bear the full 25% operator's obilgation, and we are in complete agreement with you that your plans for the loan and the exploration program are in the best interests of the holders of the property.

Very truly yours,

GULF URANIUM AND DEVELOPMENT CO.

By Glenn Williams

Vice President

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

Ching
Ellis
140
Rewritten by
5/15/56

Four Corners Exploration Company MAY 18 1956
Box 116
Grants, New Mexico

Re: Docket No. DMEA-3854 (Uranium)
Red Rock Claims
McKinley County, New Mexico

Gentlemen:

Your attorneys, Denny and Glascock, of Gallup, New Mexico, have forwarded an Abstract of Title and Quit Claim Deeds as requested in our telegram of April 27, 1956.

We note that the property is now owned by Four Corners Exploration Company and Gulf Uranium and Development Company and that Glenn D. Williams no longer is an owner.

Your application, under the subject docket number, was made out in the name of Four Corners Exploration Company and Glenn D. Williams.

Kindly give us a narrative account of the relationship now existing between you, Gulf Uranium and Development Company, and Glenn D. Williams, and the interest of each, with respect to the subject application.

It appears at this stage that we will require a Subordination Agreement signed by all holders of royalty claims, namely: Volten B. Tietjen, Theresa Tietjen, C. A. Derryberry, Avis Derryberry, Fidel and Rouse, Incorporated, W. A. Thigpen, J. T. Hutton, and Parallee Hutton. The necessary forms have been prepared for these signatures and are enclosed. Please return the original and five copies.

FROM SOLICITOR
MAY 16
FOR SIGNATURE

Whether or not we will require a Consent to Lien from Gulf Uranium and Development Company will depend upon its interest with respect to the subject application. If it is not a party to the proposed exploration project, a Consent to Lien will be required. We are enclosing the necessary forms for use in such event.

PIndritz/MChing/wog-5/15/56
cc to: 1118 Main St., Grand Junction, Colo. (Four Corners)
Docket
Code 700
M.Ching
Adm. Reading File
DMEA Field Team (Reg. III) (2)
Enclosures

Sincerely yours,

SIGNED

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

T.H.Kiilsgaard, USGS/Rm 5224
J.E.Crawford/Rm 3643
J.O.Hosted/Rm 3210 GSA

RPDwyer
PIndritz
Pending
Chron.

COPY

Initials: Chung Ellis

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

Four Corners Exploration Company
Box 116
Grants, New Mexico

Re: Docket No. DMEA-3054 (Uranium)
Red Rock Claims
McKinley County, New Mexico

Gentlemen:

Your attorneys, Denny and Glascock, of Gallup, New Mexico have forwarded an Abstract of Title and Quit Claim Deeds as requested in our telegram of April 27, 1956.

We note that the property is now owned by Four Corners Exploration Company and Gulf Uranium and Development Company and that Glen D. Williams no longer is an owner.

Your application, under the subject docket number, was made out in the name of Four Corners Exploration Company and Glen D. Williams.

Kindly give us a narrative account of the relationship now existing between you, Gulf Uranium and Development Company, and Glen D. Williams, and the interest of each with respect to the subject application.

It appears at this stage that we will require a Subordination Agreement signed by all holders of royalty claims, namely: Velten S. Tietjen, Theresa Tietjen, C. A. Berryberry, Avis Berryberry, Fidel and Rouse, Incorporated, W. A. Thigpen, J. W. Hutten, and Parallee Hutten. The necessary forms have been prepared for these signatures and are enclosed. Please return the original and five copies.

Whether or not we will require a Consent to Lien from Gulf Uranium and Development Company will depend upon its interest with respect to the subject application. If it is not a party to

the proposed exploration project, a Consent to Lien will be required. We are enclosing the necessary forms for use in such event.

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

Enclosures

MChing/izm 5-7-56
cc to: 1118 Main Street, Grand Junction, Colorado (Four Corners)
Docket
Code 700
Mr. Ching
Admr.'s Reading File
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

MF-201
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

SUBORDINATION AGREEMENT

To the United States of America:

Referring to that certain land in the County of McKinley, State of New Mexico, described ~~XXXXXXXXXX~~1/

in a Quitclaim Deed dated March 24, 1956 and recorded in book 7 page 362, official records of said County.

Copy description as indicated from deed

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. Subordinates whatever right, claim, lien or encumbrance the undersigned may have in or against the land to whatever interests, equities, and rights the Government may acquire under the contract (a) with respect to purchased property in or upon the land to the cost of which it has contributed, including the right to dismantle, sever, and remove it from the land; and (b) with respect to a percentage royalty on production from the land and a lien to secure the payment thereof; and

2. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Subordination Agreement; and (b) to give advance notice of this Subordination Agreement to any transferee of the right, claim, lien, or encumbrance hereby subordinated; and

3. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Subordination Agreement shall extend and apply thereto.

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.

(OVER)

Dated this _____ day of _____, 195__.

_____ [Seal]

_____ [Seal]

_____ [Seal]

I, _____, certify that I am _____, (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]

_____ (Seal)
Volten S. Tietjen

_____ (Seal)
Theressa Tietjen

_____ (Seal)
C. A. Derryberry

_____ (Seal)
Avis Derryberry

_____ (Seal)
Fidelity and Rouse, Inc.

_____ (Seal)
W. A. Thigpen

_____ (Seal)
J. T. Hutton

_____ (Seal)
Parallee Hutton

5-3-56

DENNY AND GLASCOCK
ATTORNEYS AND COUNSELORS AT LAW
GALLUP, NEW MEXICO

HERBERT C. DENNY HENRY S. GLASCOCK

April 30, 1956

RECEIVED
MAY 2 - 1956

Mr. Ernest Wm. Ellis, Chief
Defense Minerals Exploration Administration
U. S. Department of Interior
Washington 25, D.C.

Re: Docket 3854
Four Corners Exploration Company,
a copartnership,
Red Rock Claim No. 3 and
Red Rock Claim No. 4.

Dear Sir:

Pursuant to the instructions of Mr. Irving Rapaport of Four Corners Exploration Company, we hand you herewith abstract No. 4616 and 5355 prepared by Mid-Valley Title Co., Inc., which covers Red Rock Claims No. 3 and 4 in Section 24, Township 13 North, Range 10 West, N.M.P.M., McKinley County, New Mexico. This abstract is complete to date of January 22, 1956.

In accordance with Mr. Rapaport's directions we also enclose herewith two copies of the following:

1. Quitclaim deeds from Glen Williams and wife to Four Corners Exploration Company, a copartnership,

2. Quitclaim deeds running to Gulf Uranium and Development Company, a corporation and Four Corners Exploration Company, a copartnership, from the following:

C. A. Derryberry and wife,
J. T. Hutton and wife,
Alfred Hutton, a single man,
Volton S. Tietjen and wife.

You will note that the quitclaim deeds have all been recorded.

Mr. Rapaport has asked that we secure the return of the abstract at the earliest possible moment as it also covers numerous other claims which are in the

Mr. Ernest Wm. Ellis April 30, 1956

process of development and the abstract will be needed in connection with those matters.

It is our understanding that your attorneys have already examined this abstract with respect to these claims and have written an opinion with respect thereto. We feel sure that the enclosed quitclaim deeds will satisfy their title requirements.

Very truly yours,

DENNY AND GLASCOCK

By H. S. Glascock

HSG:fa
Enc.

AIR MAIL

cc: Mr. Irving Rapaport
Four Corners Exploration Company
P. O. Box 116
Grants, New Mexico

Four Corners Exploration Company
205 Petroleum Building
Grand Junction, Colorado

Surname copy

DEPARTMENT OF THE INTERIOR

DMEA

(Allocated Working Fund to the Office of the Secy.)

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

Ching
Ellis
Mattendorf

FORREST FINDER
FOUR CORNERS EXPLORATION COMPANY
BOX 1368
GRANTS, NEW MEXICO

APR 27 1956 (Uranium)

REFERENCE APRIL 24, DOCKET 3834 TWO COPIES EACH OF QUIT CLAIM DEEDS, ABSTRACT OF TITLE AND ANY PERTINENT DOCUMENT RELATED YOUR PROPERTY RIGHTS REQUIRED BY THIS OFFICE.

ERNEST W. ELLIS, CHIEF
BASE AND MISCELLANEOUS
METALS DIVISION

Confirmation to Mr. Finder

as mailed to Four Corners Exploration Company
1148 Main Street
Grand Junction Colorado

cc to: Admr.'s Reading File
Docket
Messrs. JKCrawford, Rm. 3614
WHKillsgaard, Rm. 5224
JGHosted, Rm. 3210,OSA
Code 700
Mr. Ching
DMEA Field Team, Region III (2)

A.G.S.

4-26-56

FOUR CORNERS EXPLORATION COMPANY
1118 MAIN STREET
GRAND JUNCTION, COLO
BOX 116
GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

RECEIVED
APR 26 1956

4/24/56

Mr. Ernest Wm. Ellis, Chief
U.S. Dept. of the Interior
Defense Minerals
Exploration Administration
Washington 25, D.C.

Re: Docket No. DMEA-3854 (Uranium)
Red Rock Claims
McKinely County, New Mex.

Dear Mr. Ellis:

This note is to inform you that the necessary quit claim deeds, needed for clarification of title on the Red Rock Claims, have been executed and are now recorded in the McKinely County courthouse at Gallup, New Mexico.

Sincerely yours
Forrest Fincher

CC: William Traver

FOUR CORNERS EXPLORATION COMPAN
1118 MAIN STREET
GRAND JUNCTION, COLO.
BOX 116
GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

4/4/56

Apr

1956

R

APR

Mr. Ernest Wm. Ellis, Chief
U.S. Dept. of the Interior
Defense Minerals
Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA-3854 (Uranium)
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Ellis:

We have been diligently working thru our attorneys, Denny and Glasscock, of Gallup, New Mexico on this complex problem of title clarification of the Red Rocks No. 3 and 4. At this time the necessary quit claim deeds have been drawn and are in process of execution. We hope that with the execution of these deeds we will be able to present the title picture that you require.

Sincerely yours,

Forrest Fincher

Forrest Fincher

FF:gf
CC:William Traver
Oscar Manol
Irving Rapaport

3-14-56

F. O. MANOL
IRVING RAPAPORT

RECEIVED
MAR 14 1956

FOUR CORNERS EXPLORATION COMPANY
205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

March 12, 1956

Mr. Ernest Wm. Ellis, Chief
US. Department of The Interior
Defense Minerals
Exploration Administration
Washington 25, D.C.

Re: Docket No. DMEA-3854 (Uranium)
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Ellis:

The title is in the process of being cleared and we expect to have it to you very shortly.

Sincerely yours,

Forrest Fincher
lw

Forrest Fincher
Geologist

FF:lw

2 Copies sent to Field Team.

3/28/56 gla

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

RECEIVED
MAR 28 1956

March 26, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Field Team, Region III

Subject: DMEA Docket 4101 (Uranium), Four Corners Exploration Company, (Divide claims), McKinley County, New Mexico and
DMEA Docket 3854 (Uranium), Four Corners Exploration Company, (Red Rock claims), McKinley County, New Mexico

file

Enclosed is the original and one copy of a letter from the subject applicant and two copies of our reply.

The only excuse we see for this letter is to stall for more time for clarification of his property rights which Mr. Ernest William Ellis has requested from the applicant in his letter dated March 7, 1956. Because of the applicant's failure to advise Mr. Ernest William Ellis of the progress being made in clarifying the property rights in connection with this application, we would recommend that this docket be closed until such time as the applicant can furnish sufficient evidence of clear title.

DMEA Docket number 4101 has been released for a field examination and the latest weekly report from the field office indicates that the field examination will be scheduled.

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
MAR 28 1956

March 26, 1956

224 New Customhouse
Denver 2, Colorado

Mr. F. O. Manol
Four Corners Exploration Company
205 Petroleum Building
Grand Junction, Colorado

Re: Docket DMEA 3854 (Uranium), Red Rock claims, McKinley County, New Mexico and Docket DMEA 4101 (Uranium), Davide claims, McKinley County, New Mexico

Dear Mr. Manol:

This will acknowledge receipt of your letter dated March 22, 1956 requesting that we revise the order of processing your DMEA applications, DMEA Docket number 3854 and DMEA Docket number 4101.

A review of our file on DMEA Docket number 3854 indicates that you have not as yet replied to the letter written you by Ernest William Ellis dated March 7, 1956. Copies of your letter dated March 22, 1956 are being forwarded to the Washington office, DMEA, and they will advise you regarding their decision as to the advisability of holding this docket in the active file for a longer period.

DMEA Docket number 4101 has been referred to the field for a field examination which will be scheduled at an early date.

Very truly yours,

W. M. TRAVER,

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

HMC:ab

cc: Chair. Op. Comm. (2)
Harshman
Shaw (2)
Hasler
Docket 3854
Docket 4101
Chron.

F. O. MANOL
IRVING RAPAPORT

FOUR CORNERS EXPLORATION COMPANY

205 PETROLEUM BUILDING
GRAND JUNCTION, COLORADO
TELEPHONE 1774

BRANCH OFFICES
BOX 116, GRANTS, N. M.
BOX 63, NATURITA, COLO.

DMEA
Mole Rec'd
M
BUR
D

March 22,

United States Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Att: Mr. W.M. Traver, Executive Officer

Dear Mr. Traver:

In view of the delay we are having in getting title cleared on our Red Rock Claims No. 3 and 4, kindly accept this letter as your authorization to reverse the order of processing our D.M.E.A. applications which are listed in your files as Docket No. 3854 and Docket No. 4101.

Docket No. 3854 is for two claims, known as the Red Rocks 3 and 4, and calls for an exploration program estimated to cost $63,050.62. Docket No. 4101 is for four claims, known as the Divides 25,26,27 and 28, and calls for an exploration program estimated to cost $88,687.50. The two groups of claims are adjoining properties.

Both properties are of equal geologic merit insofar as the possible discovery of ore is concerned excepting that the Divides have a better theoretical ratio of return for the reason of shallower drilling depths. Our estimated cost of exploration for the Divides is $22,171.87 per claim. Our estimated cost of exploration for the Red Rocks is $31,525.31 per claim.

Kindly write and tell us if this request can be granted. To us it seems advantageous to all parties concerned.

Very truly yours,

F.O. Manol

F.O. Manol
205 Petroleum Bldg.
Grand Junction, Colo.

FM:lw
CC: Irving Rapaport

700

FILE COPY
Surname: Ching

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

MAR 7 [redacted]

Four Corners Exploration Company
1118 Main Street
Grand Junction, Colorado

Re: Docket No. DMEA-3854 (Uranium)
Red Rock Claims
McKinley County, New Mexico

Gentlemen:

Reference is made to those parts of our letters of December 7, 1955 and January 18, 1956, requesting a clarification of the property rights in connection with your application.

Your letter of January 23, addressed to Mr. W. M. Traver at Denver, advised that the requested clarification would be forthcoming within a few days, but to date we have heard nothing further from you.

We are, of course, willing to cooperate with you as much as possible, but we would appreciate advice as to the progress you are making in clarifying your title. If you are no longer interested in an exploration project please so advise.

It is requested that your reply be addressed to this office.

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

MChing/izm [redacted]
3-7-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.C.L.

Per Traver's memo of 1-30-56 all future correspondence to be m

Four Corners Exploration Company

205 Petroleum Building

Grand Junction, Colorado

DMEA-3151
" 3555
" 3854
" ~~[illegible]~~
" 4101
"

1/30/56 gla

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

RECEIVED
JAN 30 1956

January 26, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3854 (Uranium), Four Corners Exploration Company, Red Rock Claims, McKinley County, New Mexico

Enclosed are two copies of a letter from the subject applicant in reply to our letter of December 28, 1955. Also enclosed are two copies of the applicant's reply to Ernest William Ellis' letter of December 7, 1955 on the subject docket.

W. M. Traver

W. M. Traver

Enclosures

Four Corners Exploration Co.
1118 Main St.
Grand Junction, Colorado

January 18, 1956

DMEA
Date Rec'd.
JAN 25 1956
BUREAU OF MINES
Denver, Colorado
RECEIVED
JAN 30 1956

U. S. Department of the Interior
DMEA
224 New Customhouse
Denver 2, Colorado

Attention: Mr. W. M. Traver

Dear Mr. Traver:

Re: Docket No. 3854
Red Rock Claims

I have just received your letter of December 28 regarding a modified exploration program on the two Red Rock Claims. Your letter being mailed to our Grants, New Mexico address was slow in getting forwarded to me here at Grand Junction, Colorado.

While we believe that to explore the Red Rock Claims fully it would be best to remain with the drilling grid proposed with our application we, of course, will acquiesce to any changes your office may deem necessary to conform with the policies under which you must operate.

Very truly yours,

F. O. Manol

F. O. Manol
1118 Main Street
Grand Junction, Colorado

FOUR CORNERS EXPLORATION COMPANY
1118 MAIN STREET BOX 116
GRAND JUNCTION, COLO. GRANTS, NEW MEXICO

IRVING RAPAPORT
F. O. MANOL

January 23, 1956

DMEA
Date Rec'd
JAN 25 1956

BUREAU OF MINES
Denver, Colorado

U. S. Department of the Interior
D.M.E.A.
224 New Customhouse
Denver 2, Colorado

RECEIVED
JAN 30 1956

Attention: Mr. W. M. Traver

Re: Docket DMEA-3854
Red Rock Claims

Dear Mr. Traver:

We are extremely apologetic for not getting into your hands the title information requested on the Red Rock claims as per your letter of December 7, 1955 over the signature of Mr. Wm. Ellis, Chief Rare and Miscellaneous Metals Division. Yesterday, Mr. Fincher, of our Grants, New Mexico office read to me over the telephone your most recent letter on the subject. Mr. Fincher is forwarding this letter to me here in Grand Junction.

Our abstract on these claims has been in the hands of the Mid-Valley Title Co. of Gallup, New Mexico to be brought up to date ever since early last fall. We have been trying repeatedly and constantly to get this abstract back into our hands so that we would be able to send it on to your office for examination. It seems that the abstractor is tremendously behind in his work and just has not been able to get to our abstract. He was contacted by long distance telephone again today and this time he promised return of the document no later than January 26.

We are aware of the fact that the delay in getting the abstract into your hands for examination has delayed the processing of our application very considerably but we are hopeful that this matter will be taken care of in the next few days.

Thank you for bearing with us.

Very truly yours,

Four Corners Exploration Company
1118 Main Street
Grand Junction, Colorado

by F. O. Manol

cc-Mid-Valley Title Co.--Gallup, New Mexico
Mr. Ernest Wm. Ellis, Chief Rare Metals Division--Washington, D.C.
Mr. Glenn D. Williams--Gallup, New Mexico
Mr. Harold Culp--Grand Junction, Colorado
Mr. Irving Rapaport--

700

FILE COPY
Surname: Ching

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

JAN 18 1956

Four Corners Exploration Company
Box 116
Grants, New Mexico

Re: Docket No. DMEA-3854 (Uranium)
Red Rock Claims
McKinley County, New Mexico

Gentlemen:

Please refer to the third and fourth paragraphs of our letter of December 7, 1955, addressed to Mr. Irving Rapaport, in which we requested a clarification of the property rights in connection with your application. Since we have received no reply to our inquiry, we are unable to continue the processing of your application.

Reference is also made to Mr. W. M. Traver's letter of December 28, 1955 to Mr. F. O. Manol, President of your Company, requesting your views on a proposed modified exploration program. Here too, we are unable to proceed with your application until we receive a satisfactory answer to Mr. Traver's letter.

Your prompt attention to the foregoing questions will be greatly appreciated.

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

MChing/izm 1-17p56
cc to: Docket
Code 700
Admr.'s Reading File
Mr. Ching
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.S.G.

1/11/56/gla

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

RECEIVED
JAN 11 1956

AIR MAIL

January 9, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3854 (Uranium), Four Corners Exploration Company and Glenn D. Williams, Red Rock claims, McKinley County, New Mexico

Reference is made to your letter dated December 19, 1955 on the subject docket.

We have not as yet heard from the applicant in reply to our letter to him dated December 28, 1955.

Enclosed are the original and three copies of a memorandum from D. D. Haynes, geologist, and the original and three copies of a covering letter from E. N. Harshman in answer to your questions raised in your letter of December 19, 1955.

We concur in Mr. Harshman's suggestion to either (1) prepare a contract with Stage I drilling approved at locations 100 feet from some of the claim boundaries, as proposed in the examination report, by not allowing Stage II or III drilling closer than 100 feet to any of the claim boundaries, or (2) prepare a contract as suggested in your letter of December 19, 1955 and allow Stage II and III drilling as close as 100 feet from the property boundaries.

W. M. Traver

W. M. Traver

Enclosures

IN REPLY REFER TO:
DMEA
Date Rec'd.
JAN 9 1956
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

RECEIVED
JAN 11 1956

January 6, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3854 (Uranium), Four Corners Exploration Company, Red Rock claims, McKinley County, New Mexico.

Enclosed are the original and ten copies of a memorandum by D. D. Haynes, U. S. Geological Survey, regarding a modified exploration program on the subject claims.

For reasons given in the memorandum Haynes does not concur with the proposed modifications. He is technically correct in stating that to fully explore the claims the drilling pattern should not be changed; in fact the original program proposed by the examining team does not fully explore the claims since the north line of holes is 200 feet from the north property line.

The examination report states that the principal directions of elongation of ore bodies in the area are north-south and slightly north of west, and that the probable dimensions of the expected ore bodies are 25 to 40 feet in width and 250 to 400 feet in length.

Considering the directions of orientation of the postulated ore bodies, the length (250 to 400 feet) becomes the significant figure, and drilling should be no closer than 200 feet of the

property lines if we are to avoid the discovery of ore which may extend into adjacent property.

However, DMEA has recently received an application for exploration assistance (DMEA 4101) on the Divide claims which adjoin the Red Rock claims on the west. Should this application be approved, and it well may be, the west property line of the Red Rock claims would not be significant, for the ground to the west would be subordinated to the Government.

Under these conditions it may be appropriate to: (1) prepare a contract with stage I drilling approved at locations 100 feet from some of the claim boundaries, as proposed in the examination report, but not allow stage II or III drilling closer than 100 feet to any of the claim boundaries, or (2) prepare a contract as suggested by the Chairman of the Operating Committee and allow stage II and III drilling as close as 100 feet from the property boundaries.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (11)

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
JAN 3 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
Date Rec'd.
JAN 9 1956

BUREAU OF MINES
Denver, Colorado
P. O. Box 360
Grand Junction, Colorado

December 30, 1955

RECEIVED
JAN 11 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: D. D. Haynes

Through: J. William Hasler

Subject: DMEA 3854 (Uranium), Four Corners Exploration Company, Red Rock claims, McKinley County, New Mexico

Reference is made to your memorandum of December 28, regarding a modified exploration program outlined by the chairman of the Operating Committee.

Previous exploration for ore bodies in the Todilto limestone has shown that these types of ore bodies are very sinuous and have very sharp lateral cutoffs. Therefore, it is very difficult to outline an ore body even on a 25-foot drilling grid;and to be able to accurately project the trend of an ore body for 100 or more feet is, for all purposes, impossible.

This common feature of Todilto-type ore bodies may be seen by referring to DMEA docket 3151, contract Idm-E 671 and DMEA docket 3190, contract Idm-E 672 as examples. Three ore holes, within a large ore body, located 25 feet east of the line common to Flat Top claims 3 and 4 were offset 40 feet to the west of the common claim line by 2 holes which contained only a trace of mineralized material.

The writer believes that if we are to fully explore the Red Rock 3 and 4 claims, the drilling pattern should not be changed from that recommended by the examining team.

Therefore, I do not concur with the modified program recommended by the Operating Committee.

D. D. Haynes
D. D. Haynes,
Geologist

DDH/mlr

1/3/56 gla

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

224 New Customhouse
Denver 2, Colorado

AIR MAIL

December 28, 1955

Mr. F. O. Manol, President
Four Corners Exploration Company
Box 246
Grants, New Mexico

Re: Docket No. DMEA 3854 (Uranium)
Red Rock Claims, McKinley County,
New Mexico

Dear Mr. Manol:

Consideration is being given to a modified exploration project on the two Red Rock Claims as follows:

All holes, except one, in Stage I will be drilled 200 feet from the boundaries or from previously drilled holes. The excepted hole would complete the line of holes already drilled by you 100 feet from the south boundary. The result would be a 31-hole instead of a 38-hole Stage I. Stage II would consist of 35 holes, and Stage III would allow 21 holes.

If you are in agreement with this suggested exploration program, will you please advise 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

HMC:jy
cc: Docket 3854
Chair. Op. Comm. (2)
Harshman
Hasler
Shaw (2)
Chron.

Surname copy
Docket DMEA-3854

700

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

Chiang
Ellis
Indritz
Selfridge
Robinson
Mattendorf

Mr. E. H. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

DEC 19 1955

Re: Docket No. DMEA-3854 (Uranium)
Four Corners Exploration Company
and Glenn D. Williams
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Harshman:

Reference is made to your two memoranda of December 7 regarding separate applications covering the Red Rock Nos. 3 and 4 claims and the Divide Nos. 25, 26, 27, and 28 claims, respectively.

Information furnished to date indicates that Glenn D. Williams is the owner of the two Red Rock claims and the application covering these two claims was made out under a joint venture in which the Four Corners Exploration Company and Glenn D. Williams hold equal shares.

The four Divide claims are owned by W. A. Greer and Bertha Greer, but the Four Corners Exploration Company is given control and operation of them through an Operating Agreement which sets up another joint venture. In this case, however, the application was made out by Four Corners Exploration Company alone.

Inasmuch as the Four Corners Exploration Company holds only a 50 percent interest in each of the two joint ventures and the two properties are distinct entities as far as the owners and associates in the joint ventures are concerned, there appears to be no justification for requiring a combination of the two properties under one application.

A Report of Examination has already been made on the Red Rock claims, and an exploration project recommended. The application covering the Divide claims has only recently been received.

You will note from our letter of December 7 to Four Corners Exploration Company that we have requested further clarification in connection with the property rights under Docket 3854. In the meantime, we propose to draw up a contract covering the two Red Rock

claims. In the Field Team's memorandum of November 21, forwarding the Report of Examination, it was suggested that drilling 100 feet from the property lines would be undesirable if work is confined to the two claims. We are, therefore, planning to modify the drilling program for Stage I (Figure 2) by placing all holes, except one, 200 feet from the boundaries or from previously drilled holes. The excepted hole would complete the line of holes already drilled by the Applicant 100 feet from the south boundary. The result would be a 31-hole instead of a 38-hole stage. Stage II would be scaled down to 35 holes, and Stage III would remain unchanged with 21 holes.

Will you kindly advise by teletype whether or not the suggested modification is agreeable to the Field Team and to the Applicant?

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCB)

APPROVED:

/s/ Robert W. Geehan (GCB)
Member, Bureau of Mines

Thor H. Kiilsgaard (GCB)
Member, Geological Survey

MChing/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. Ching

12/12/55 gla

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

RECEIVED
DEC 12 1955

December 7, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3854 (Uranium), Four Corners Exploration Company, Red Rock claims, McKinley County, New Mexico

Enclosed are two copies of a letter and two copies of a map submitted by the applicant in reply to our letter of November 21, 1955.

We see no reason why docket DMEA 3854 should not be combined with the new application on the Divide claims Nos. 25, 26, 27, and 28, forwarded you under separate cover, since these Divide claims are contiguous to the Red Rock claims Nos. 3 and 4 and have the same Operator.? The applicants apparently are the sole owners of the Red Rock claims Nos. 3 and 4, since they are successors to Glenn Williams' interests.? The Operating Agreement dated August 29, 1955 submitted with the application on the Divide claims states that W. A. Greer and Bertha Greer are the owners of said Divide claims and that the Four Corners Exploration Company, a co-partnership composed of F. O. Manol and Irving Rapaport is called the Operator.

This application has the identical Operating Agreement as DMEA docket 3555, Idm-E791, (Uranium), W. A. Greer, San Miguel and Montrose Counties, Colorado and on the basis of the Washington office's decision relative to the Operating Agreement in that case we question the validity of the Four Corners Exploration Company being a proper applicant for DMEA aid on the Divide claims. However, in the best interests of the Government, we prefer and recommend that the Divide claims and the Red Rock claims be handled as one application if you deem it legally possible. It is noted that in the application on the Divide claims signed copies of an Owner's Consent to Lien by W. A. Greer and Bertha Greer have been included, and it appears to us that the Four Corners Exploration Company has sufficient right to mine and remove ore from the property.

Will you please advise this office of your decision in this matter.

E. N. Harshman

Enclosures

E. N. Harshman

December 3, 1955

Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

RECEIVED
DEC 12 1955

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

Subject: Docket DMEA 3854 (Uranium)

Gentlemen:

Attached are the maps your office requested wth your letter of November 21, over the signatures of Messrs. J. W. Townsend and E. N. Harshman.

Regarding the subordination of properties in which we have an interest and which adjoin the two claims (Red Rocks 3 and 4) in Docket DMEA 3854 please be advised of the following:

The four claims next west, known as the Divides 25, 26, 27, and 28, have on this very day been submitted to your office with a separate application of their own for DMEA assistance.

Perhaps it is well to call to your attention now that we are associates of Glenn Williams (or successors to Glenn Williams) in the instance of Red Rock Claims 3 and 4. That we are associates W. A. Greer in the instance of the Divide Claims 25, 26, 27, and 28.

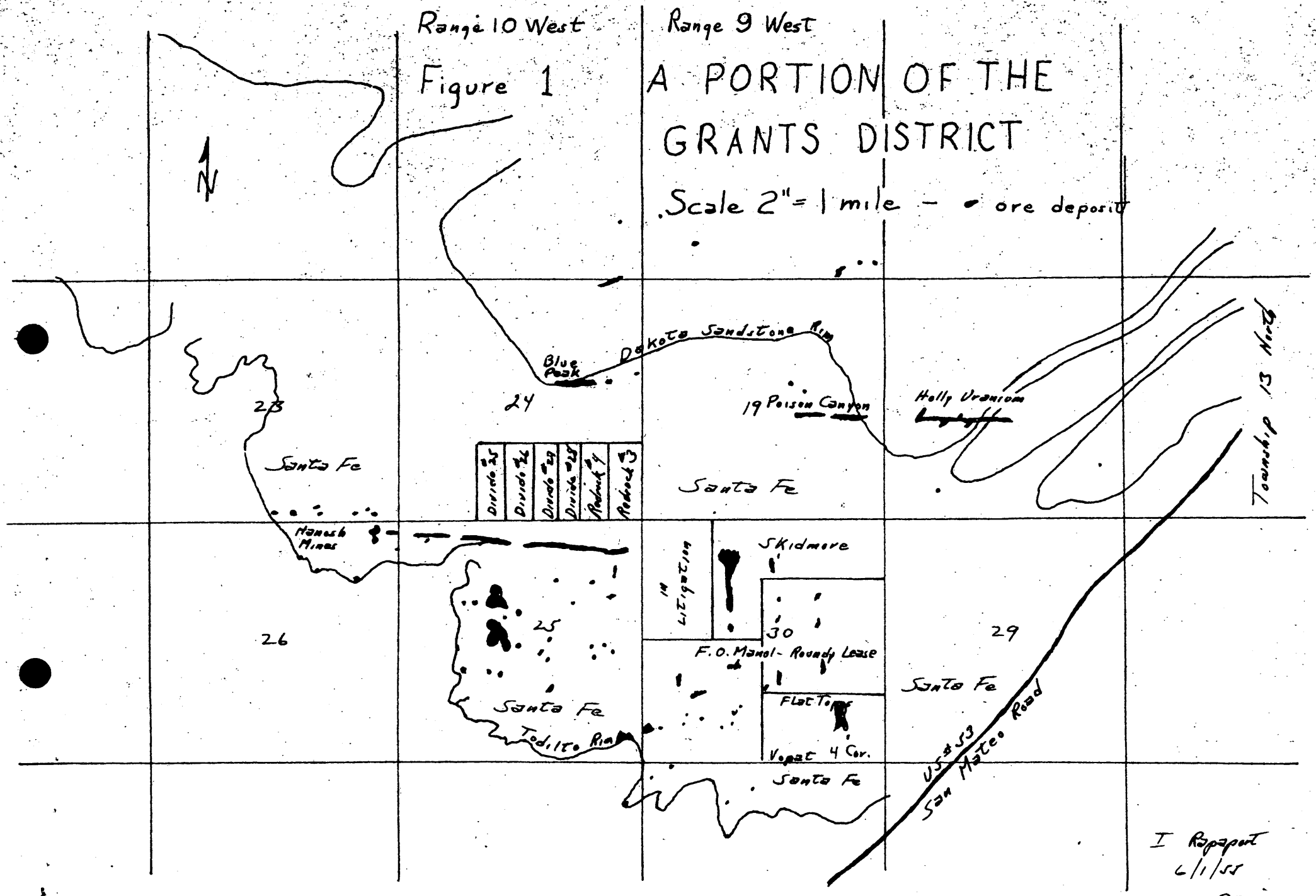
We hold no interest in any other claims in this Section, having sold our interest along with Glenn Williams in Red Rock Claims 1 and 2 to the Urado Uranium Corporation, 304 Main Street, Grand Junction, Colorado during this past year.

If we can be of further assistance in this matter kindly let us know.

Sincerely,

F. O. Manol
1118 Main Street
Grand Junction, Colorado

cc-Glenn Williams



I Rapaport
6/1/55
Jon

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

RECEIVED
DEC 12 1955

December 7, 1955

224 New Customhouse
Denver 2, Colorado

Mr. F. G. Manol, President
Four Corners Exploration Company
1118 Main Street
Grand Junction, Colorado

Re: Docket DMEA 3854 (Uranium),
Red Rock claims, McKinley
County, New Mexico

Dear Mr. Manol:

This will acknowledge receipt of your letter dated December 3, 1955 and the map showing the location of the Red Rock claims Nos. 3 and 4 and the Divide claims Nos. 25, 26, 27, and 28.

Copies of your letter and map are being forwarded to the DMEA Washington office.

Very truly yours,

E. N. Harshman

E. N. Harshman
Acting Executive Officer, DMEA
Field Team, Region III

HMC:ab

cc: Sec. Op. Comm. (2)
Harshman
Shaw (2)
Hasler
Docket 3854
Chron.

Surname copy

700

Ching
Silly
Mattendorf

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

DEC - 7 1955

Mr. Irving Rapaport
Four Corners Exploration Company
Box 116
Grants, New Mexico

Re: Docket No. DMEA-3654 (Uranium)
Red Rock Claims
McKinley County, New Mexico

Dear Mr. Rapaport:

We have received our Field Team's Report of Examination on the subject property and are in a position to continue the processing of your application.

In a letter dated November 21, 1955, and addressed to Mr. F. O. Manol and Mr. Glenn B. Williams, our Field Team suggested that you consider the inclusion of adjacent claims controlled by you which might benefit from the proposed exploration work. An early reply to the Field Team's letter will enable us to proceed with the processing of your application.

A further question has arisen in respect to the property rights. Our field examiners report that the Red Rock Claims and the Saddle group were transferred by Glenn Williams to J. T. Hutton on December 2, 1954 (W. D. No. 12, page 202). The latter transaction, if completed, would be inconsistent with the Agreement, dated July 17, 1954, between Glenn B. Williams and Four Corners Exploration Company. Furthermore, your application states your interest in the land is that of Lessees. A clarification of these questions would be appreciated.

If the Four Corners Exploration Company and Glenn B. Williams are not the owners of the subject property, copies of the lease under which you control the property should be furnished this office and Consents to Lien should be furnished by the owners.

Sincerely yours,

Ernest Wm. Kilin, Chief
Rare and Miscellaneous
Metals Division

MChing/gla
12-7-55
cc to: Admr.'s Reading File
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

Code 700 Mr. Ching
DMEA Field Team, Region III (2)

R.C.S.

12-6-55

IN REPLY REFER TO:

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

RECEIVED
DEC - 5 1955

December 2, 1955

Re: DMEA 3854
Four Corners Exploration Co.
Red Rock claims
McKinley County, N. Mex.
$57,283.13 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team report.

The application requested assistance in exploring ground (2 claims) almost surrounded by producing mines. Three 100,000 ton ore bodies are said to be within a stone's throw of the Red Rock claims.

The examiners conditionally recommend a 3-stage drilling program to consist of:

Stage I	1,330	feet of core drilling
	12,486	" " non-core "
Stage II	1,470	" " core "
	13,567	" " non-core "
Stage III	735	" " core "
	6,783	" " non-core "

The cost is estimated at $57,283.13.

Five drill holes have been drilled in which the ore-bearing Todilto limestone has a favorable thickness and three of them show uranium mineralization. Also two fracture trends project through the property.

The examiners conclude that the chances of finding significant ore bodies on the applicant's property are good, but not proportional to the proposed outlay.

Although the two claims, 40 acres, are in the midst of producing properties the examiners believe that the ore body most likely to be found would be in the 3,000 to 5,000 ton range, 25 to 40 feet wide, 250 to 400 feet long, and 6 to 7 feet thick. Because of

the small acreage the total tonnage to be expected might be less than that required to secure the Government's interest in possible production. Therefore the examiners recommend that the applicants subordinate acreage adjoining the Red Rock claims with that to be drilled.

The conclusion of the examiners concerning acreage is well taken as are their recommendations.

I concur with the recommendation of the Field Team that a three-stage drilling program be approved if additional acreage is subordinated. If such acreage is not added, and the probable size of the target is not increased, by subsequent disclosures, the drilling should not be undertaken.

N. E. Nelson

N. E. Nelson

12-1-55 jm

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

RECEIVED
DEC - 1 1955

November 30, 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 3854, Four Corners Exploration Company and Glenn D. Williams, Red Rock claims Nos. 3 and 4, McKinley County, New Mexico

I have reviewed the report of examination of Four Corners Exploration Company, DMEA Docket 3854, dated November 21 and received in this office November 29. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

A field examination was made on August 11, 1955, of subject claims. The examination resulted in a recommendation that a three-stage exploration program be approved, Stage I to consist of 1,330 feet of core and 12,486 feet of non-core drilling; stage II to consist of 1,470 feet of core and 13,567 feet of non-core drilling; and stage III to consist of 735 feet of core and 6,783 feet of non-core drilling. The total cost of the project would be $57,283.13, with Government participation at 75 percent or $42,962.35.

The program is intended to explore two dominant fracture trends which project through the property for uranium. Large ore deposits are found in the Todilto limestone of the area, but five holes drilled by the applicant did not show encouraging results.

We concur in the recommendation of the field engineers for a three-stage drilling program.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

John E Crawford
John E. Crawford

11-25-55 ajm

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

November 21, 1955

Mr. F. O. Manol, President
Four Corners Exploration Company
Box 246
Grants, New Mexico
and
Mr. Glenn D. Williams
818 South Puerco Street
Gallup, New Mexico

RECEIVED
NOV 25 1955

Re: Docket DMEA 3854 (Uranium),
Red Rock claims, McKinley County,
New Mexico

Gentlemen:

It is noted that you have an interest in mining claims which are adjacent to the Red Rock claims and would receive direct benefit as a result of the proposed exploration.

Will you please submit four copies of a map or sketch showing the location of the Red Rock claims Nos. 1, 2, 3, and 4, White Cap claims Nos. 1, 2, 7, and 8, and the Divide claims. Any of these claims which are contiguous to the Red Rock Nos. 3 and 4 claims and which will benefit as a result of the proposed exploration should be subordinated to the Government. Will you please advise your willingness to subordinate those claims which might benefit as a result of DMEA exploration.

Very truly yours,

DMEA Field Team, Region III

W. M. Traver

By J. W. Townsend
J. W. Townsend

E. N. Harshman
E. N. Harshman

Copy to: Sec. Op. Comm. (4)
Shaw (2)
Harshman
Hasler
Docket 3854
Chron.

MC:ab/arh

12-1-55 gm

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

224 New Customhouse
Denver 2, Colorado

November 21, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 3854 (Uranium), Four Corners Exploration Company and Glenn D. Williams, Red Rock claims Nos. 3 and 4, McKinley County, New Mexico

ON-SITE EXAM

Enclosed are the original and three copies of the report pertaining to the above application.

The applicants have been requested to submit a map or sketch of the claims they own which are contiguous to the Red Rock claims Nos. 3 and 4, and to subordinate those claims which will be benefitted by the proposed exploration.

We concur in the recommendations of the field examiners for a three stage drilling program in the event the applicants subordinate more land. If the applicants refuse to subordinate other claims it appears that drilling 100 feet from the property boundaries in Stage I is not desirable.

W. M. Traver

By J. W. Townsend
J. W. Townsend

RECEIVED
NOV 25 1955

Reviewed by
DMEA OPERATING COMMITTEE
11-30-55
(date)

E. N. Harshman
E. N. Harshman

Enclosures

DMEA
Date Rec'd.
OCT 28 1955
BUREAU OF MINES
Denver, Colorado

Building 20
Denver Federal Center
Denver 2, Colorado
October 26, 1955

REGION III

Memorandum

TRANSMITTED
NOV 21 1955

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman
John F. Shaw

Subject: Docket No. DMEA 3854 (Uranium) Four Corners Exploration Company, Red Rock Nos. 3 and 4 claims, McKinley County, New Mexico

Enclosed are the original and 9 copies of a Joint Engineering and Geologic Report covering Docket No. DMEA 3854.

The Four Corners Exploration Company applied for exploration assistance in the amount of $63,052.62 to explore their Red Rock Nos. 3 and 4 claims by a three-stage drilling program.

A field examination was made on August 11, 1955, by Carl Balser, Mining Engineer, and D. D. Haynes, Geologist. The examining team recommended a modified program consisting of 36,369 feet of drilling at an estimated cost of $57,203.13.

It is recommended that a contract be prepared in three stages--Stage I to consist of 1,330 feet of core drilling and 12,486 feet of non-core drilling; Stage II would consist of 1,470 feet of core drilling and 13,367 feet of non-core drilling; Stage III would consist of 735 feet of core drilling and 6,783 feet of non-core drilling. The total cost of the project would be $57,203.13.

E. N. Harshman

E. N. Harshman
Member Field Team

John F. Shaw

John F. Shaw
Supervising Mining Engineer

Enclosures

cc 9
E. N. Harshman
DMEA 3854
Chron.

Reviewed by
DMEA OPERATING COMMITTEE
11-30-55
(date)

JFS:ph

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS McKAY, SECRETARY

TRANSMITTED

NOV 21 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY EXAMINING TEAM
REGION III

DMEA 3854, Four Corners Exploration Company, Red Rock Nos. 3 and 4 claims
McKinley County, New Mexico

Uranium

Joint Engineering and Geologic Report

by

Reviewed by
DMEA OPERATING COMMITTEE

11-30-55
(date)

D. D. Haynes, Geologist
U. S. Geological Survey

Carl Belser, Mining Engineer
U. S. Bureau of Mines

October 17, 1955

DMEA 3854

FOUR CORNERS EXPLORATION COMPANY
RED ROCK NOS. 3 AND 4 CLAIMS
McKINLEY COUNTY, NEW MEXICO

CONTENTS

Joint engineering and geologic report — Page

Introduction and summary 1
Acknowledgments 2
Location, topography, and climate 2
History and production 3
Ownership and extent 3
Present status 3
    Exploration and development 3
    Mining and milling equipment and other facilities 4
Geology 4
Ore deposits 5
Ore reserves 6
Proposed exploration 6
Estimated cost of project 8
Recommendations and conclusions 11

ILLUSTRATIONS

Figure — Follows page

1. Location map, Red Rock Nos. 3 and 4 claims, Four Corners Exploration Company, McKinley County, New Mexico, DMEA 3854 2
2. Claim map showing Red Rock 3 and 4 claims and hole locations for stage 1 drilling 2

DMEA 3854

INTRODUCTION AND SUMMARY

Four Corners Exploration Company, P.O. Box 116, Grants, New Mexico, on May 26, 1955, made application for aid in an exploration project on the Red Rocks Nos. 3 and 4 claims. The application proposed to explore the Todilto limestone for uranium ore by a three-stage drilling program consisting of 105 holes at a total estimated cost of $63,052.62. The claims are in the southwest corner of sec. 24, T. 13 N. S., R. 10 W., New Mexico Principal Meridian, McKinley County, New Mexico, and 16 miles by road from the town of Grants, New Mexico.

Large ore deposits in the Todilto limestone are found to the south, east, and west of the property, and substantial ore deposits occur to the north in the Poison Canyon member of the Morrison formation. The Todilto limestone has a favorable thickness in the five holes which have been drilled on the claims and uranium mineralization has been cut in three of the holes.

Two dominant fracture trends, which may control deposition, project through the property. For the above reasons and other favorable geologic reasons shown under the heading of geology in this report, it is believed that the chances of finding significant ore bodies on the applicant's property are good.

A modified three-stage drilling program is recommended consisting of 101 holes (36,369 feet of drilling) at a total cost of $57,283.13. Government participation is 75 percent, or $42,962.35.

ACKNOWLEDGEMENTS

The examining team was accompanied by L. J. Goetz of the Bureau of mines; J. W. Hasler and Lowell S. Hilpert, geologist, U. S. Geological Survey; and Forrest R. Fincher, geologist, and F. G. Manol, Four Corners Exploration Company. Mr. Louis Garbrecht of the Atomic Energy Commission was consulted regarding the area before the examination was made.

LOCATION, TOPOGRAPHY, AND CLIMATE

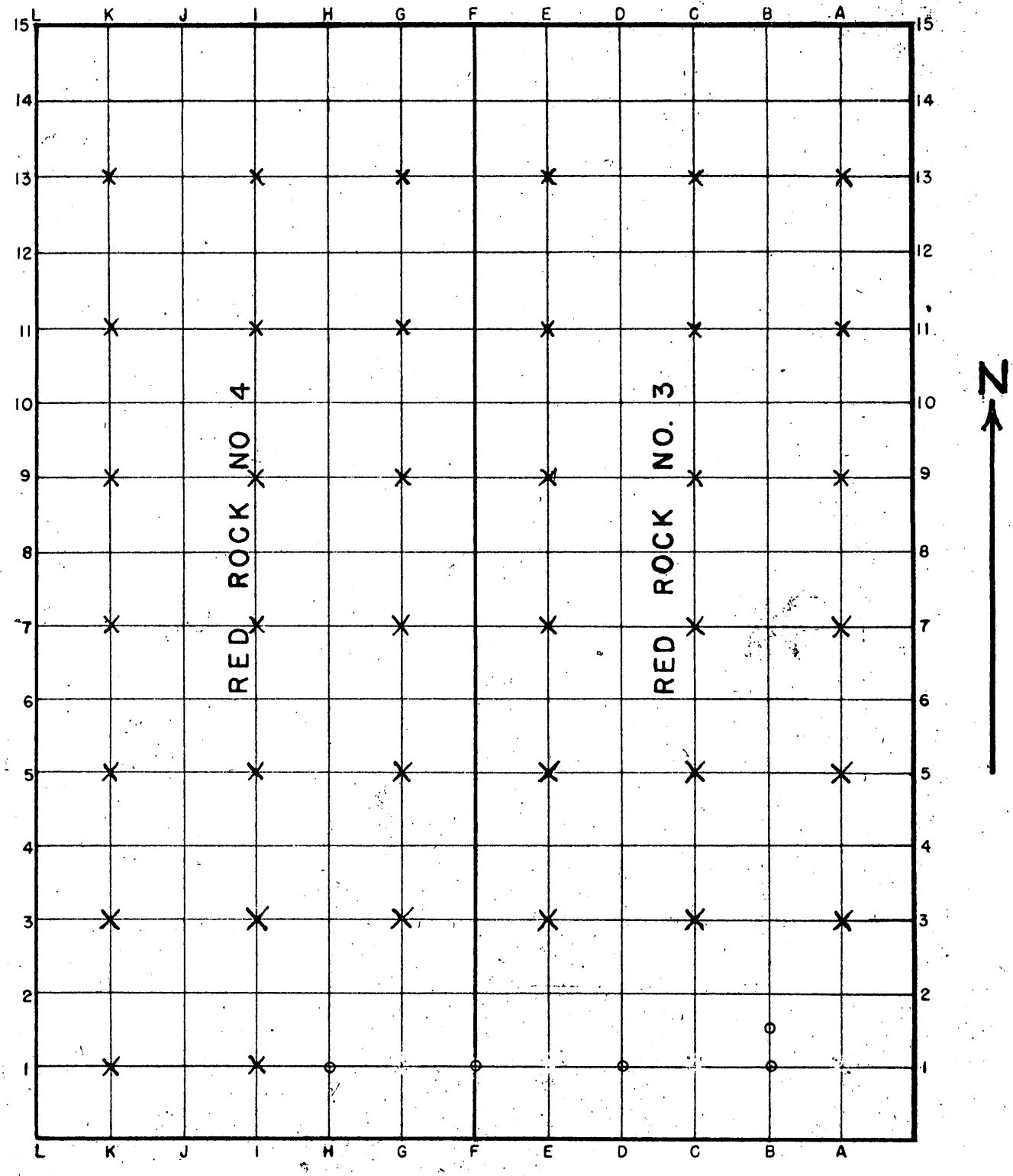
The Red Rock Nos. 3 and 4 claims are unpatented 600 - feet by 1500 - foot claims in the extreme southeast corner of section 24, T. 13 N., R. 10 W., New Mexico principal meridian, McKinley County, New Mexico (figs. 1 and 2).

The surface dips gently to the southwest (about 80 feet in 1500 feet) and the formations dip at about the same slope to the northeast.

A fair access road traverses the southern end of the claims from whence it is 16 miles to the Blue Water mill and about the same distance to Grants.

Altitudes at the property vary from 6,940 feet to 7,020 feet. Annual rainfall is light and the country is classed as semi-arid. Mining operations can be maintained the year around.

Timber, suitable for mining use, can be obtained from northern New Mexico. The company owns a water well about two miles from the claims. Labor, supplies, and light equipment can be obtained in Grants and heavy equipment from Albuquerque, 80 miles further to the east. The Santa Fe railroad passes through Grants and Bluewater and on R. E. A. electric line is connected to the well pump.



EXPLANATION

⊙ HOLES DRILLED BY APPLICANT

X LOCATION OF PROPOSED STAGE I DRILL HOLE

Figure 2. MAP SHOWING RED ROCK NO. 3 AND 4 CLAIMS AND HOLE LOCATIONS FOR STAGE I DRILLING, FOUR CORNERS EXPLORATION CO., AND GLEN D. WILLIAMS, OWNERS, MC KINLEY COUNTY, NEW MEXICO

200 0 400 FEET

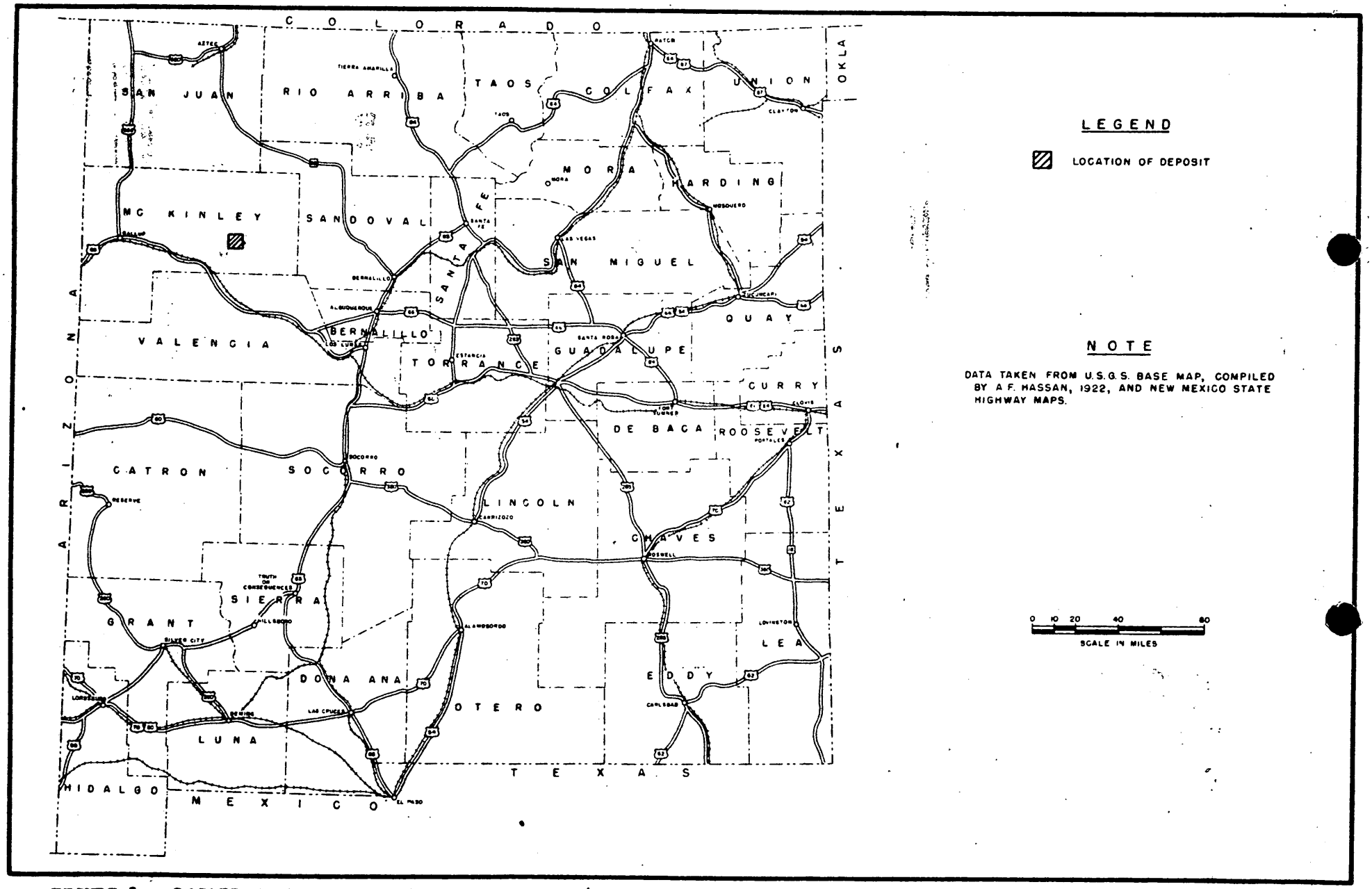


FIGURE 1 - LOCATION MAP, RED ROCK No. 3 AND No. 4 CLAIMS, FOUR CORNERS EXPLORATION COMPANY, McKINLEY COUNTY, NEW MEXICO. DMEA 3854

HISTORY AND PRODUCTION

Prospecting for uranium became of interest following the introduction of the Government's buying schedules in 1948. A major discovery was made near Haystack Mountain, about 6 miles west of the claims, in 1950 and since that time prospecting in the area has been active. The Red Rock claims were located in October 1951. No production has been made from the property.

OWNERSHIP AND EXTENT

Red Rock Nos. 3 and 4 claims were located on October 6, 1951 by C. A. Derryberry and recorded on October 9, 1951 in Mining claim record book No. 3, page 358.

These claims, together with the other Red Rock claims and the Saddle group, were transferred to Glen Williams on January 28, 1952. The transaction is recored in Q. C. R. Book No. 6, page 432.

Willaims transferred the property to J. T. Hutton on December 2, 1954 (W. D. No. 12, page 202).

No further transfers seemed to be on record.

An agreement made July 17, 1954, between Glen D. Williams on July 17, 1954, agreed to transfer a one-half interest in the White Cap claims Nos. 1, 2, 7, and 8 and the Red Rock claims Nos. 1, 2, 3, and 4 to the Four Corners Exploration Company on condition that the Four Corners Exploration Company drill at least 5,000 feet of test holes.

PRESENT STATUS

Exploration and Development

The property has been partly explored by the drilling of five holes near the south end of Red Rock No. 3 claim.

Mining and Milling equipment and other facilities

There is no mining or milling equipment on the property. However, Four Corners Exploration Company has considerable drilling equipment and has done over 30,000 feet of drilling in the Grants area. The only facility consists of a dirt road running across the south end of the claims.

GEOLOGY

The Grants uranium mining district lies on the north flank of the Zuni Uplift, a broad, elongated, asymmetrical dome trending in a northwest direction. It is about 65 miles long and 40 miles wide. The strata underlying the subject claims dip gently northeast.

The rocks exposed by the subject claims are, in ascending order, the Jurassic Todilto formation, Jurassic Summerville formation, and the Jurassic Bluff sandstone, a tongue of the Cow Springs sandstone. The principal uranium-bearing formation present on the claims is the Jurassic Todilto limestone.

The Jurassic Todilto limestone ranges from 15 to 30 feet in thickness and consists of a dark-gray, dense limestone which appears to have been recrystallized in the vicinity of uranium deposits. The Jurassic Summerville formation is about 150 feet thick and consists of reddish brown siltstone and white, very-fine to fine-grained sandstone. The Summerville formation commonly interfingers with the Todilto limestone and the contact is difficult to find. The Summerville formation forms wide, flat benches and in this area is covered by wind-blown alluvium when it is not overlain by the Bluff sandstone. The Jurassic Bluff sandstone ranges from 100 to 175 feet in thickness on the subject claims and consists of light-tan, fine- to very-fine grained, fairly homo-

genous sandstone.

All holes will be bottomed in the Jurassic Entrada sandstone which underlies the Todilto limestone. The Entrada is a pale reddish-brown to grayish orange pink, fine to very-fine grained, cross-bedded, cross-laminated sandstone.

The rocks on the subject claims are cut by numerous joints, the two prominent directions being slightly north of west and north-south. One fault is visible on the claims, but the vertical displacement is less than 20 feet.

ORE DEPOSITS

The ore deposits in the immediate area of the subject claims occur in both the Jurassic Todilto limestone and the Poison Canyon sandstone unit of the Brushy Basin member of the Jurassic Morrison formation. As the Poison Canyon sandstone is not present on the subject claims, we will not be concerned with it as an ore horizon in this report.

The Todilto deposits range in size (dimensionally) from small mineralized masses 75 to 100 feet long and 25 to 30 feet wide to large elongate mineralized masses that may be as long as 2,000 feet and as wide as 75 feet. The two major directions of elongation for ore bodies in this area are north-south and slightly north of west. The ore bodies seem to be oriented parallel to the direction of the major joint systems although there is no definite proof to state definitely that the joints serve as a major control of the ore.

The size of the ore deposit that might be expected on the subject claims would be in the 3,000 to 5,000 ton range and would probably range

from 25 to 40 feet in width and from 250 to 400 feet in length. The average thickness of the ore bodies in this area ranges from 6 to 7 feet. The average grade of ore produced from the surrounding mines has been about 0.35 percent U_3O_8. Below are the production and reserves (as of March 1955) of some of the surrounding mines:[1/]

OWNER	LOCATION	PRODUCTION Tons	PRODUCTION $\%U_3O_8$	Tons	$\%U_3O_8$
Haystack Mtn. Dev. Co.	Sec. 25, T. 13 N., R. 10 W.	4	0.67	161,000	0.20%
Hanosh Mines	Sec. 26, T. 13 N., R. 10 W.	9000	0.38	6,200	0.35
Haystack Mtn. Dev. Co.	Sec. 23, T. 13 N., R. 10 W	No production		32,500	0.19
T. Skidmore	Sec. 30, T. 13 N., R. 9 W.	No production		72,000	0.24
F. O. Manol, Roundy lease	Sec. 30, T. 13 N., R. 9 W.	18,240	0.33	15,000	0.41

Several of the favorability criteria to look for in the drill core would be a recrystallized limestone and a limestone with a thickness of over 15 feet. Also by contouring the base of the Todilto limestone the applicant may be able to outline small anticlinal folds and larger synclinal structures. Both the large synclinal basins and small anticlinal folds are favorable structures for ore deposition.

ORE RESERVES

There are no known ore reserves on the property.

PROPOSED EXPLORATION

The applicant proposed a three-stage drilling program with 105 holes averaging 358 feet in depth, a maximum of 37,590 feet of core and non-core drilling. At a total cost of $63,050.62, the Government's share at 75 percent would be $47,287.97.

[1/] Data from U. S. Atomic Energy Commission

The applicant's proposed plan of exploration seems satisfactory for exploration of the subject claims. Since the time of application for Government assistance, the applicant has drilled a total of five holes on the property. The locations of the holes are shown in figure 2. Of the five holes drilled, three were slightly mineralized. The number of mineralized holes, the depth to the mineralization, the thickness, and the percent U_3O_8 is shown below:

Hole B-1 depth	$\%U_3O_8$	Hole D-1 depth	$\%U_3O_8$	Hole B 50-1	$\%U_3O_8$(50'N. of B-1)
295.0-295.5	0.01	297.0-297.5	0.01	309.0-309.5	0.02
295.5-296.0	0.05	297.5-298.0	0.01	309.5-310.0	0.02
296.0-296.5	0.03	298.0-298.5	0.03	310.0-310.5	0.02
296.5-297.0	0.01	298.5-299.0	0.06	310.5-311.0	0.01
		299.0-299.5	0.02		

The applicant's drilling depths seem to be reasonable.

Stage I holes should be drilled on a 200-foot grid (fig. 2) starting one hundred feet from the south, east, and west boundaries of the claims and continuing to within two hundred feet of the north boundary of the claims. Stage I will consist of 38 holes totaling 13,816 feet of core and non-core 364' drilling. Stage I will be used to determine the location and trend of possible ore-bearing structures (small anticlinal folds and synclinal basins), and to delineate areas that have a favorable thickness of Todilto limestone. Stage II holes should be drilled on a one-hundred foot grid surrounding structures and mineralization encountered in Stage I drilling. Stage II will consist of about 42 holes totaling 15,037 feet of core and non-core 358' drilling. Stage II hole locations should have the field team's approval before being drilled.

Stage III will consist of 21 holes with a total of 7,518 feet of core 358' and non-core drilling. Stage III would be used to further delineate mineralized and favorable areas. Stage III holes should be drilled on a fifty-foot grid and their location would be dependent on the field team's approval.

A fifty-foot grid is necessary in Stage III because of the narrow width and sinuous nature of the ore bodies.

All holes would be non-core drilled to the top of the Todilto limestone and then core drilled through the ore zone and five feet into the underlying Entrada sandstone.

All core will be stored for use by the U. S. Geological Survey and the U. S. Bureau of Mines. All mineralized core will be split and one-half used for chemical assay and one-half stored for Government use.

ESTIMATED COST OF PROJECT

The applicant proposed a 3-stage drilling program as follows:

Stage I

Independent Contracts

Bulldozing roads and drill sites 8 - 10-hr. days at $125.00/day	$ 1,000.00
Plug bit drilling (42 holes)	
0 ft. to 100 ft. 4,200 ft. at $0.50/foot	2,100.00
100 ft. to 200 ft. 4,200 ft. at $1.00/foot	4,200.00
200 ft. to 300 ft. 4,182 ft. at $1.50/foot	6,273.00
300 ft. to 400 ft. 2,376 ft. at $2.00/foot	4,758.00
400 ft. to 500 ft. 76 ft. at $2.50/foot	190.00
Core drilling (35 ft. of each hole)	
$2.00 above base 1,470 ft.	2,940.00
Total independent contracts	$21,461.00
Supervision, surveying, logging, accounting, mapping, reports, core boxes, core storage, and assaying at $0.25 per foot	3,759.25
Total Stage I	$25,220.25
Total Stage II (42 holes)	25,220.25
Total Stage III (21 holes)	12,610.12
Total estimated cost	$63,050.62
Cost per foot for 41,267 feet of drilling	1.53

Engineers Estimated Cost of Project

Costs as shown by applicant are acceptable in most cases with the exception that four holes have been deleted from Stage I drilling. Bulldozing and drilling costs will be very similar for all three stages. Holes A-1, C-1, E-1, and G-1 (1,221 feet) have been deducted from Stage I drilling.

Stage I Core Drilling Costs

Independent contracts

Bulldozing roads and drill sites .3 days at $125.00/day — 37.50

Core drilling the bottom 35 feet of each hole

Feet depth	total feet	Price per foot	Cost	
200-300'	147	3.50	514.50	
300-400	1,113	4.00	4,452.00	
400-500	70	4.50	315.00	5,281.50
	1330			

Total independent contracts — $5,319.00

Labor and supervision

Labor
Engineers helpers 1/10 of $300.00/ mo for 2 mo. — 60.00
Supervision
Engineer - geologist 1/10 of 600.00/mo.for 2 mo. — 120.00

Total labor and supervision — 180.00

Operating materials and supplies

120 paper core boxes at $.75 each — 90.00
Oil and gas for jeep (1/10 of $80.00) — 8.00

Total operating material and supplies — 98.00

Operating equipment (furnished by applicant)

Rental
1 Jeep (value $1500.00 for 2 mo. $25.00/mo. 1/10 to coredrilling) — 5.00

Total operating equipment — 5.00

Initial rehabilitation and repairs

none

New buildings, improvements, etc.

none

Miscellaneous

Bookkeeping and reports 1/10 of $50.00/mo. for 2 mo. — 10.00
Liability and compensation insurance and payroll taxes. 7 percent of $190.00 — 13.30

Total miscellaneous — 23.30

Total estimated cost of 1330 feet of core drilling — $5,625.30

Estimated cost per foot — 4.23

Stage I Non-Core Drilling Costs

Independent Contracts

Bulldozing roads and drill sites (2.7 days at $125.00/day) 337.50
Non-Core drilling all but 35 feet of each hole

Feet depth	Total feet	Price per foot	Cost	
0 -100'	3,800	.50	1,900.00	
100-200	3,800	1.00	3,800.00	
200-300	3,643	1.50	5,464.50	
300-400	1,237	2.00	2,474.00	
400-500	6	2.50	15.00	$13,653.50
	12,486			
		Total Independent Contracts		$13,991.00

Labor and supervision

Labor
Engineer's helper .9 of $300.00/mo. for 2 mos. $540.00

Supervision
Engineer-geologist .9 of $600.00/mo 2 mo. 1,080.00

Total labor and supplies $1,620.00

Operating material and supplies

Oil and gas for jeep .9 of $80.00 72.00

Total operating material and supplies $72.00

Operating equipment (furnished by applicant)

Rental
1 Jeep (value $1,500.00) for 2 months
$25.00/mo. .9 to plug-bit drilling 45.00

Total operating equipment $45.00

Initial rehabilitation and repairs

none

New buildings, improvements, etc.

none

Miscellaneous

Bookkeeping and reports .9 of $50.00/mo. for 2 months $90.00
Liability and compensation insurance and payroll taxes. 7 percent of $1,710.00 119.70

Total Miscellaneous $209.70

Total estimated cost for 12,486 feet of non-core drilling $15,937.70

Estimated cost per foot $1.28
(Average cost of Stage I drilling is $1.55 a foot)

Summary of Costs

Stage I (38 holes)		
1,330 feet of core drilling at $4.23 a foot	$5,625.90	
12,486 feet of non-core drilling at $1.28 a ft.	15,982.08	
20 chemical assays at $5.00each	100.00	
Total estimated cost of Stage I		$21,707.98
Stage II (42 holes)		
1,470 feet of core drilling at $4.23 a foot	6,218.10	
13,567 feet of non-core drilling at $1.28 a ft.	17,365.76	
20 chemical assays at $5.00 each	100.00	
Total estimated cost of Stage II drilling		23,683.86
Stage III (21 holes)		
735 feet of core drilling at $4.23 a foot	3,109.05	
6,783 feet of non-core drilling at $1.28 a foot	8,682.24	
20 chemical assays at $5.00 each	100.00	
Total estimated cost of Stage III drilling		11,891.29
Total estimated cost of Stage I, 11, and III drilling		$57,283.13
Government participation 75 percent, or		42,962.35

Time required for completion - 5 months

RECOMMENDATIONS AND CONCLUSIONS

The possibility exists that if an ore body or bodies are discovered the total tonnage on only two claims might be so small as to drastically reduce the chance of the Government being repaid their full contribution in royalties (referring to DMEA Circulars 14 and 21).

While talking with F. O. Manol at the time of the examination it was learned that the Four Corners Exploration Company has an interest in the Divide claims which lie to the West of the Red Rock claims and are contiguous with the Red Rock claims. At that time it was mentioned that the Government might wish to have the Divide claims subordinated under DMEA 3854, but nothing definite was decided upon as the examining team wished to contact the Region III Field Team for instructions. If the Divide claims were subordinated under DMEA 3854, it would increase the possibility of the Government getting a complete return on its contribution.

Therefore, it is recommended that the Region III Field Team contact the Four Corners Exploration Company and request, if possible, the subordination of the Divide Claims.

The Four Corners Exploration Company and Glen D. Williams wish to explore for uranium on their Rod Rock 3 and 4 claims in the Grants mining district, McKinley County, New Mexico. They propose a three-stage drilling program consisting of 105 holes totaling 37,590 feet of core and non-core drilling.

The subject claims arelocated in a very favorable area and although no known trends can be projected onto the claims, their potential for containing large ore bodies is very good. Five holes have been drilled on the property and three were slightly mineralized.

The applicant's drilling program is reasonable as well as their estimated hole depths.

Because of the reason shown above, we recommend that a short-form contract be prepared for a three stage program consisting of:

Stage I

Drilling 38 holes as shown in figure 2. The holes to bottom 5 feet below the base of the Todilto limestone and to be cored AX size or larger for the bottom 35 feet. Also the chemical assaying of a maximum of 20 samples.

The recommended cost for a maximum of 1,330 feet of core drilling is $4.23 a foot, or	$5,625.90
The recommended cost for a maximum of 12,486 feet of non-core drilling is $1.28 a foot, or	15,982.08
The recommended cost for 20 chemical assays is $5.00 each, or	100.00
The total recommended cost for Stage I is	$21,707.98

Stage II

Stage II is dependent upon the results of Stage I and prior approval of the field team is receommended. It consists of drilling 42 holes spaced on a 100 - foot grid surrounding holes and structures found by Stage I drilling . The 42 holes in Stage II to bottom 5 feet below the base of the Todilto limestone and to be cored AX size or larger for their bottom 35 feet. Also the chemical assaying of a maximum of 20 samples.

The recommended cost of a maximum 1,470 feet of core drilling is $4.23 a foot, or	$6,218.10
The recommended cost of a maximum of 13,567 feet of non-core drilling is $1.28 a foot, or	17,365.00
The recommended cost of 20 chemical assays is $5.00 each, or	100.00
The total recommended cost for Stage II is	$23,683.86

Stage III

Stage III is dependent upon the results of Stage I and Stage II and prior approval of the field team is recommended. It consists of 21 holes to be drilled on 50- foot centers to delineate ore found in previous drilling an dependent upon the field teams approval. Holes are to bottom 5 feet below the bottom of the Todilto limestone and to be cored AX size or larger for their bottom 35 feet. Also the chemical assaying of a maximum of 20 samples.

The recommended cost for a maximum of 735 feet of core drilling is $4.23 a foot, or	$ 3,109.05
The recommended cost for a maximum of 6,783 feet of non-core drilling is $1.28 a foot, or	8,682.24
The recommended cost of a maximum of 20 chemical assays is $5.00 each, or	100.00
The total recommended cost of Stage III is	$11,891.29
The total recommended cost for all three stages is	$57,283.13
Government participation is 75 percent, or	$42,962.35

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

RECEIVED
JUL - 7 1955

224 New Customhouse
Denver 2, Colorado

June 30, 1955

Memorandum

To: J. F. Shaw W/Brochure
J. W. Hasler

From: DMEA Field Team, Region III

Subject: Docket DMEA-3854 (Uranium), Four Corners Exploration Company, and Glenn D. Williams, (Red Rock No. 3 and No. 4 claims), McKinley County, New Mexico

Enclosed is the subject application in the amount of $63,050.62.

Also enclosed is a copy of a letter from the Chairman of the Operating Committee and attached memoranda from R. D. Trace and J. E. Crawford.

An examination and suitable report are requested.

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

HMC:sr

cc Chairman Op. Comm. (2)
Harshman
Hasler
Subject
Chron

700

Surname copy

Ching
Ellis
Gleason
Selfridge
Johnson

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

JUN 28 1955

Re: Docket No. DMEA-3854 (Uranium)
Four Corners Exploration Company
and Glenn D. Williams
Red Rock Nos. 3 and 4 claims
McKinley County, New Mexico

Dear Mr. Traver:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendation. A copy of the application was retained by your office.

Enclosed are two copies each of comments and recommendations by R. D. Trace and John E. Crawford of the Uranium Commodity Committee, dated June 17 and June 23, 1955, respectively.

Mr. Crawford recommends that the Applicant be requested to supply some evidence of the results of prospecting which may have been conducted on the property; however, the Applicant has already stated that there have been no holes drilled on the property and it is reasonable to assume that he haspresented all the pertinent information available to him.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

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

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

MChing/gla
6-24-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

R.G.G.

700

Surname copy

Ching
Ellis
Hedges
Kilgoore
Selfridge
Johnson

UNITED [redacted]
DEPARTMENT OF THE [redacted]OR
DEFENSE MINERALS EXPLORATION ADMI[redacted]TION
WASHINGTON 25, D. C.

JUN 28 1955

Mr. Irving Rapaport
Four Corners Exploration Company
Box 116
Grants, New Mexico
and
Mr. Glenn D. Williams
818 South Puerco Street
Gallup, New Mexico

Re: Docket No. DMEA-3854 (Uranium)
Red Rock Nos. 3 and 4 claims
McKinley County, New Mexico

Gentlemen:

The application for assistance in exploring the subject property in McKinley County, New Mexico, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

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

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

C. O. Mittendorf

Administrator

Copy to: Mr. Glenn D. Williams

MChing/gla
6-24-55
cc to: Admr.'s Reading File
Docket
Code 700 - Mr. Ching
DMEA Field Team, Region III (2)

R.C.S.

6/24/55-gla

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

June 23, 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: Application for assistance, DMEA Docket 3854, Four Corners Exploration Co., Red Rock Claims, McKinley County, New Mexico

I have reviewed the attached application for assistance, Four Corners Exploration Co., DMEA Docket 3854; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

Mr. Hosted suggests that the application be referred to the Field Team for study and possible examination, and that the Field Team contact Ernest R. Gordon, Atomic Energy Commission, Grand Junction, Colorado, for any information that he may have about the property and the area. While the Red Rock Claims are apparently surrounded by economic deposits of uranium, the application of the Four Corners Exploration Co. does not indicate that the organization has conducted any initial prospecting on the Red Rock Claims. No mention was made of mineralization on the property. Because of the geologic favorability of the Grants District, New Mexico, and of this specific area, it seems strange that the company has not made some attempt to determine the potentialities of the Red Rock Claims. It is my recommendation that the Four Corners Exploration Co. be requested to supply the DMEA with some evidence of the results of prospecting which they may have conducted on the claims.

John E. Crawford

John E. Crawford

RECEIVED
JUN 24 1955

Attachment

6/20/55 gla

IN REPLY REFER TO:

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

RECEIVED
JUN 17 1955

June 17, 1955

Re: DMEA-3854
Four Corners Explor. Co.
Red Rock Nos. 3 & 4
Grants District
McKinley Co., N. Mex.
$63,050.62 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: R. D. Trace, U. S. Geological Survey

Subject: Review of application

The applicant proposes to drill on a grid pattern 105 holes, averaging 358 feet in depth, in three stages, to explore the Todilto limestone. The "sole" merit of the property is that it is surrounded by ore deposits.

Refer to Field Team. With their knowledge of the district, let them evaluate the possibilities of known ore trends crossing the subject area.

RD Trace

R. D. Trace

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

June 13, 1955
Subject: DMEA-3854
Re: Exploration Assistance
Red Rock Claims #3 & #4

Four Corners Exploration Co. &
Glenn D. Williams
Box 116
Grants, N.M.

Gentlemen:

The receipt of your application dated May 26, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3854 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

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

June 13, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

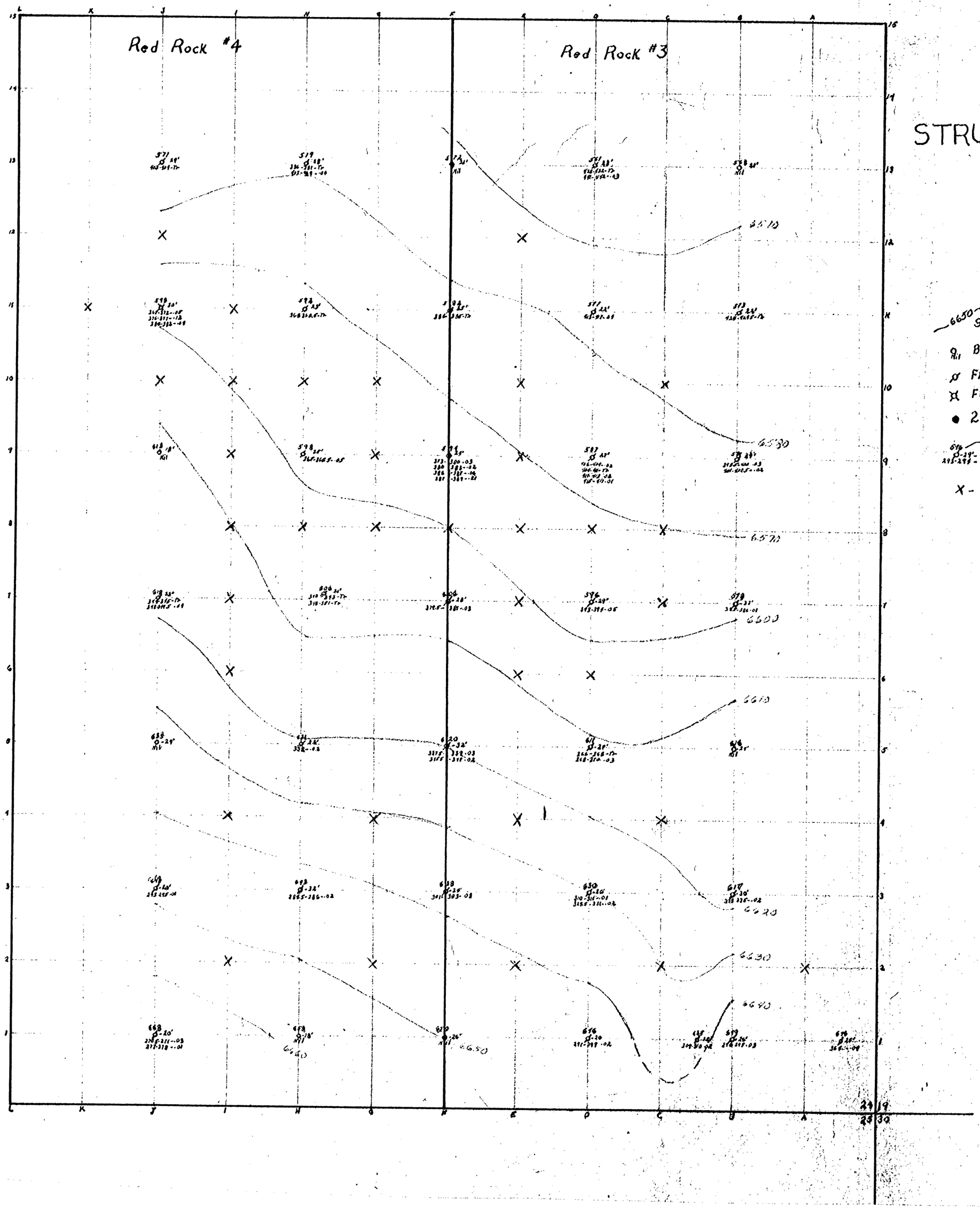
From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

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

DMEA-3854 Four Corners Exploration Co.

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



STRUCTURE CONTOUR MAP

RED ROCKS #3 and #4
SECTION 24 T.13N., R.10W.
McKINLEY COUNTY N.M.

SCALE
1" = 100' 0' 50' 100'
contour - 10' interval

LEGEND

6650 — Structure contour on base of Todilto formation

Barren drill hole

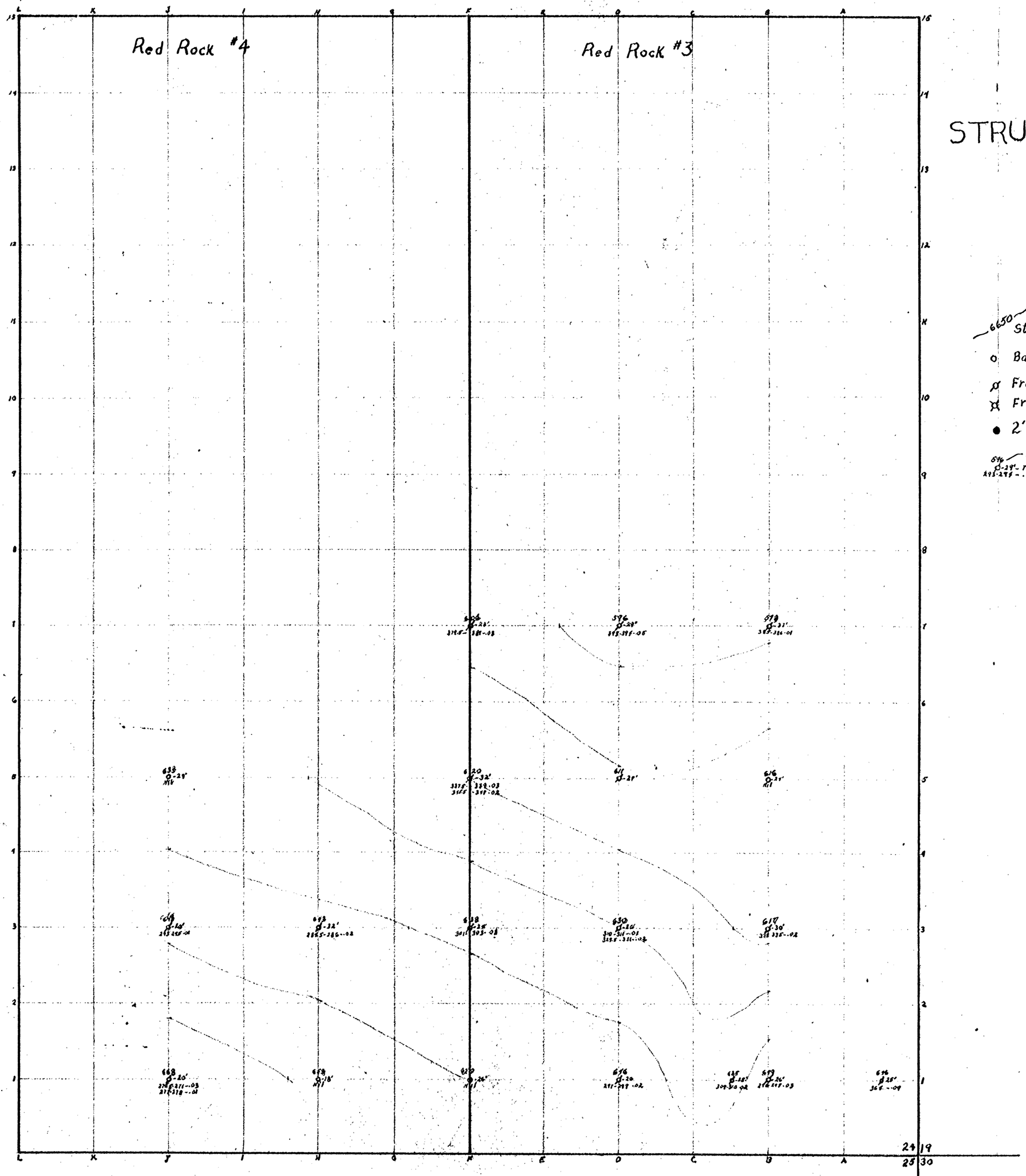
From trace to .10% U_3O_8

From 1' of .10% U_3O_8 to 2' of .20% U_3O_8

2' of .20% U_3O_8 and better

Elev. Jt-Je contact
0-29' - Thickness of Todilto limestone
295-299 - .05 - Gamma Value

X - Proposed second stage hole



N

STRUCTURE CONTOUR MAP

RED ROCKS #3 and #4
SECTION 24 T.13N, R.10W.
McKINLEY COUNTY N.M.

SCALE
1" = 100' 0' 50' 150'
contour – 10' interval

LEGEND

6650 Structure contour on base of Todilto formation

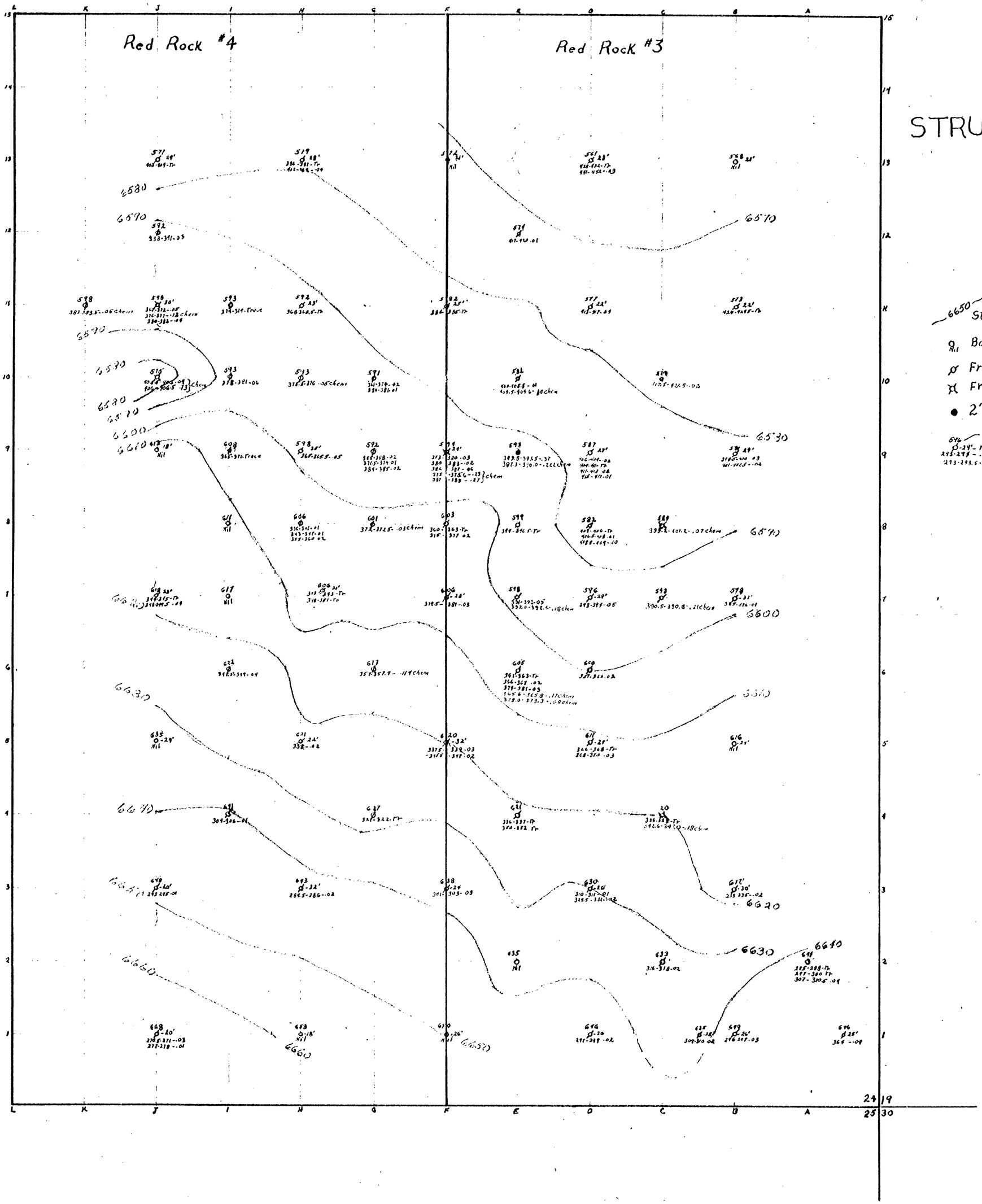
o Barren drill hole

Barren drill hole with a trace to .10% U_3O_8

From 1' of .10% U_3O_8 to 2' of .20% U_3O_8

● 2' of .20% U_3O_8 and better

Elev. Jt-Je contact
Thickness of Todilto limestone
Gamma Value



N

STRUCTURE CONTOUR MAP

RED ROCKS #3 and #4
SECTION 24 T.13N., R.10W.
McKINLEY COUNTY N.M.

SCALE
1" = 100' 0' 50' 100'
contour - 10' interval

LEGEND

6650 Structure contour on base of Todilto formation

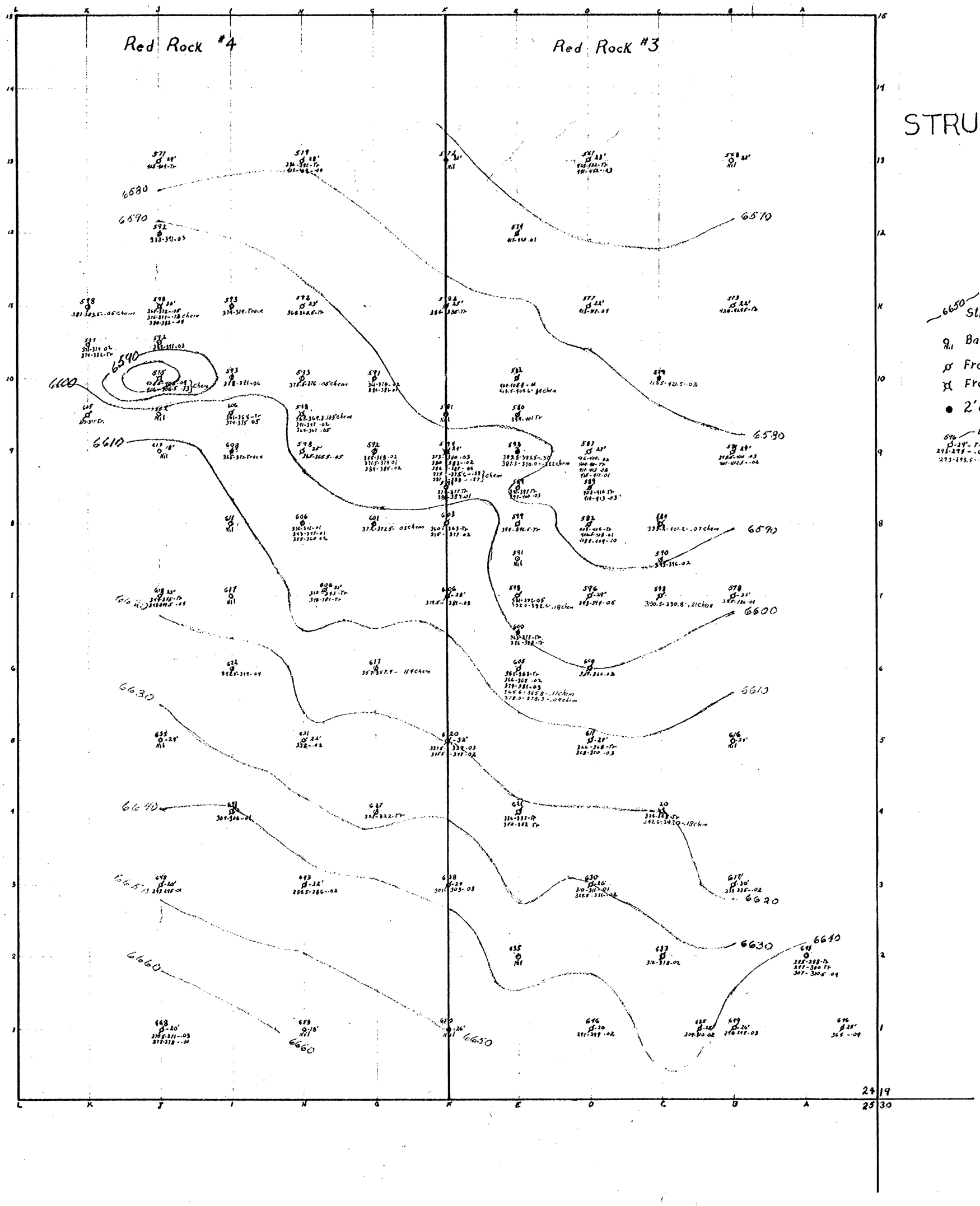
Nil Barren drill hole

From trace to .10% U_3O_8

From 1' of .10% U_3O_8 to 2' of .20% U_3O_8

2' of .20% U_3O_8 and better

546 Elev. Jt-Je contact
0-29' - thickness of Todilto limestone
295-299 - .05 Gamma value
293-293.5 - .08 chem - Chem. Assay value



STRUCTURE CONTOUR MAP

RED ROCKS #3 and #4
SECTION 24 T.13N., R.10W.
McKINLEY COUNTY N.M.

SCALE
1" = 100' 0' 50' 100'
contour – 10' interval

LEGEND

6650 Structure contour on base of Todilto formation

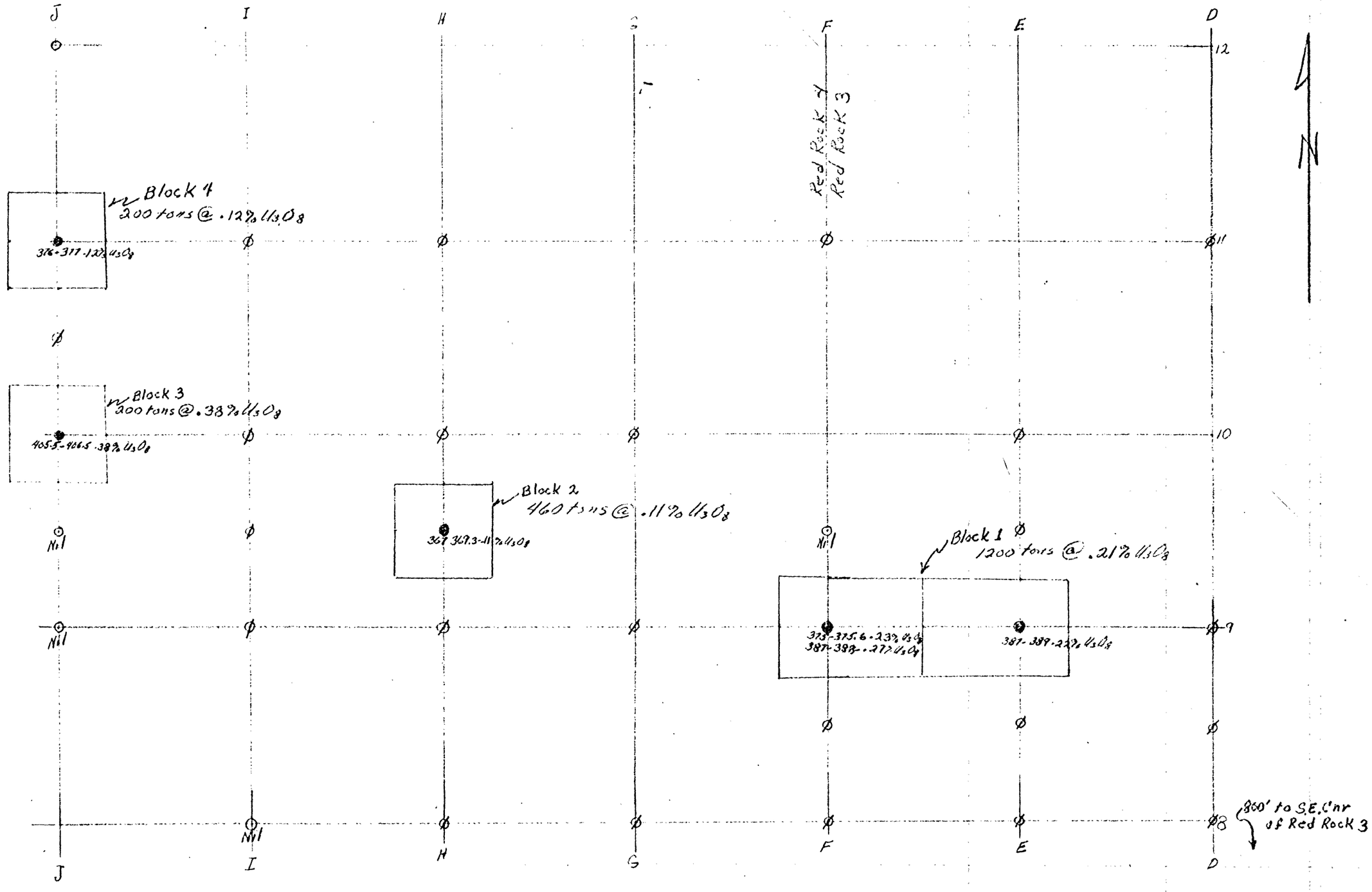
Nil Barren drill hole

Ø From trace to .10% U_3O_8

Ø From 1' of .10% U_3O_8 to 2' of .20% U_3O_8

● 2' of .20% U_3O_8 and better

596 Elev. St-Je contact
Ø-29'- Thickness of Todilto limestone
293-299 - .05 Gamma Value
293-293.5 - .08 Chem - Chem. Assay Value



Ore Reserve Map - Red Rock Claims
Scale: 1" = 50'

Legend

Nil - Barren Drill Hole

Ø - Mineralized, but Contains < 1' @ .10% U3O8

● - 1' @ .10% U3O8 and better.

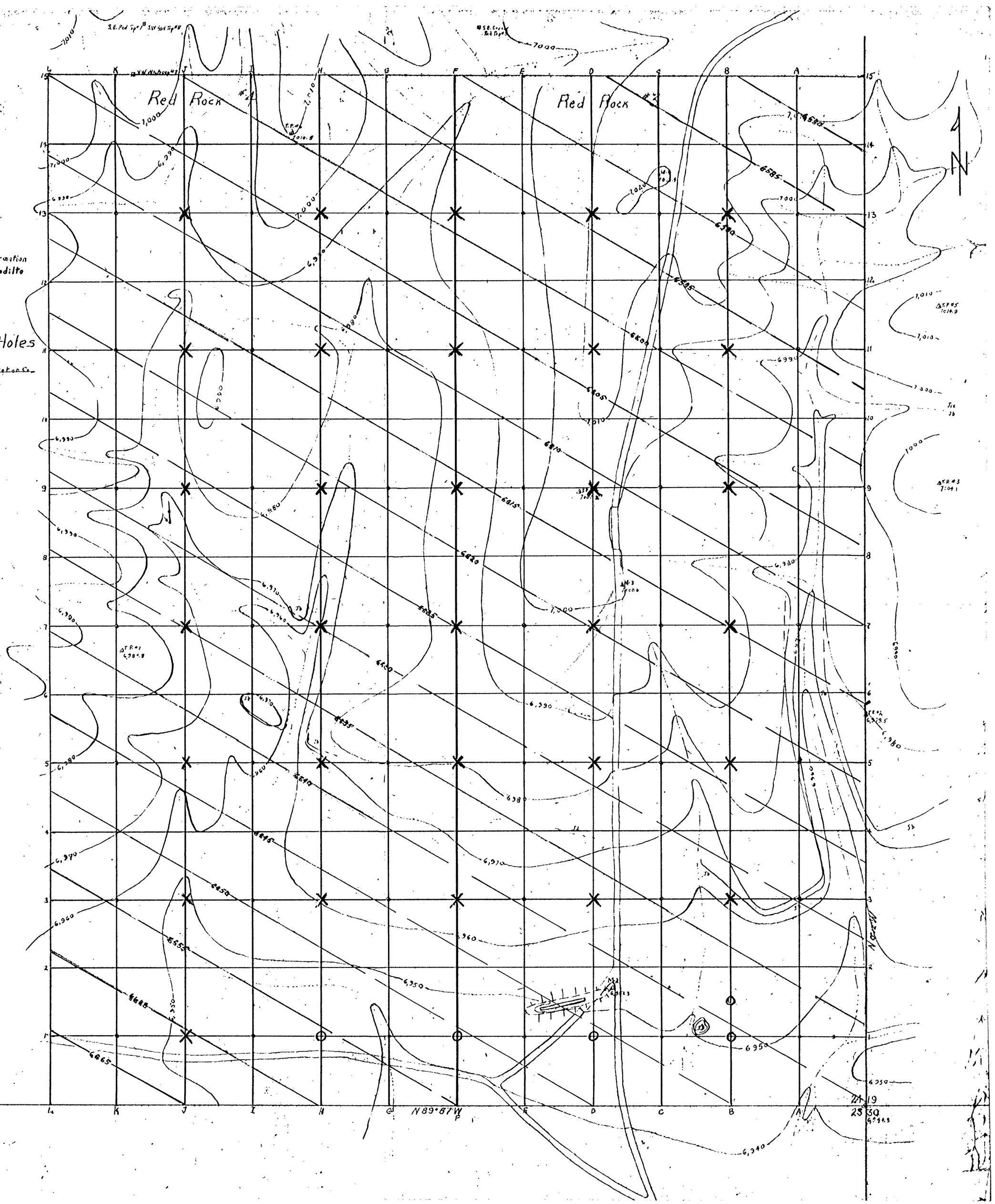
Figure 2

RED ROCKS #3 and #4
SECTION 24, T.13N., R.10W.
MC KINLEY COUNTY, N.M.

SCALE
1" = 100'

LEGEND

- Contour 10' Interval - sea level datum
- TP#6 Survey Station
- Discovery Pit
- Joint directions
- Jb Bluff formation - San Rafael Group
- Jrc Recapture Creek Member - Morrison formation
- Structure Contours on base of Todilto
- ~~Proposed Drill Holes - Stage 1~~
- o Holes Completed by Applicant
- X Proposed Stage I Holes

~~Report~~
~~Four Corners Exploration Co.~~
~~February 15, 1985~~

DMEA - 3854