DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Idm-E NO. 812

DMEA NO. 3649

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [X] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [X] Royalty Audits
- [X] Certification of Discovery
- [ ] Closing Letter
- [X] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [X] Contract with all exhibits and annexes
- [X] Owner's Consent to Lien and Subordination Agreement
- [X] Application and attachments

Right Side

- [X] Project summary (final)
- [X] Work Completed analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project.
- [X] Final Field Team Report (Tab)
- [X] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [X] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. 2 : Reports

- [X] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers
- [X] Settlement Sheets

Right Side

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

Folders No. 3 : Maps (Use pocket folder or envelope)

Folders No. _____ : Settlement Sheets

Folders No. _____ : Drill Logs

Folders No. _____ : Royalty material

17963

Docket

Murphy
Johnson
Robin
Denyer
Appt. Secretary
Chambers
Pamr
Crawford
Yoder
Kilgaard
Martin
JEBenson

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

To: Arthur Hamilton,
John W. Harris,
W. D. McDavid,
Otis Phillips, Jr.,
Rex Phillips,
Graham B. Ladd, and
Simpson Mining Company,
a joint venture,
c/o Julian E. Simpson, Agent
P. O. Box 127
304 Main Street
Grand Junction, Colorado

Pursuant to the provisions of Exploration Project Contract No. Idm-E812, dated June 8, 1955, (Docket No. DMEA-3649), hereinafter called the "Contract," between Arthur Hamilton, John W. Harris, W. D. McDavid, Otis Phillips, Jr., Rex Phillips, Graham B. Ladd, and Simpson Mining Company, a partnership comprised of Julian E. and Alan M. Simpson, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien therefor and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

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

Widespread drilling performed under the contract resulted in the discovery of a significant deposit of uranium-vanadium ore in sandstone of the Salt Wash member of the Jurassic Morrison formation.

Dated: MAY 2 5 1956

Operator's agent (original)
Kathleen P. Ladd, c/o Graham B. Ladd,
918 Milam Building, San Antonio, Texas
contract Adm.' Audit Div.
DMEA Field Team, Regi III (2)
Finance Office
Docket
Rare & Misc. Metals Div.
Admr.'s Reading File
Operating Committee
Robert W. Geehan, Rm. 3608
THKiilagaard, Rm. 5224
F. E. Johnson
Mr. Murphy

UNITED STATES OF AMERICA

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

3649

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

FIRST ROYALTY AUDIT CERTIFICATE

I have examined the production records and sales documents pertaining to the sale of Uranium ores for the period June 8, 1955, through May 3, 1957, by

Hamilton, Harris, McDavid, Phillips, Ladd and
Simpson Mining Company
304 Main Street,
Grand Junction, Colorado

produced from the Rajah group of claims, located in the Gateway Mining District, Mesa County, Colorado, on which royalties are due the U. S. Government under terms of Contract Idm-3312, Docket No. DMEA-3649 (Uranium) dated June 8, 1955.

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

The audit established the total sales of such ores for this period, subject to DMEA royalties, to be $354,723.25. Royalty due the Government at the contract rate of 5% is $17,736.17. The royalty paid and balance due are as follows:

Total Royalties Due	$17,736.17
Total Royalties Paid	17,736.17
Balance of Royalties Due	$ 0.00

June 25, 1957

Donald T. Finch
Donald T. Finch, Auditor

EXTRA COPY
DMEA
RECEIVED JUL 5 1957

DATE	INITIALS	CODE
7/11		102
"		
7-8		900

FINAL ROYALTY AUDIT REPORT

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DATE

I INTRODUCTION

On June 12, 1957, an audit was made of the production, sales, and royalty accounts and records of

Hamilton, Harris, McDavid, Phillips, Ladd and
Simpson Mining Company
364 Main Street
Grand Junction, Colorado

pertaining to the sale of uranium ore during the period June 8, 1955 through May 3, 1957, produced from property known as Rajah Group of claims, Gateway Mining District, Mesa County, Colorado, on which royalties are due the U. S. Government under the terms of Contract Ida-3512, Docket No. DMEA-3649 (Uranium), dated June 8, 1955.

The operator's records of production and sales, consisting of an integrated set of books, and copies of liquidation settlement sheets issued by Union Carbide Nuclear Company, purchaser, were examined at the office of the Simpson Mining Company at 364 Main Street, Grand Junction, Colorado. Mr. Simpson, representative of the operator, was consulted as necessary during the course of the audit. His cooperation greatly facilitated the audit work.

II GENERAL INFORMATION

The exploration contract provides that should the Government make a certification of discovery or development, the operator, either as principal or surety, shall pay to the Government a percentage royalty based on the gross proceeds of all production of minerals obtained from the land described in Annex I, Article 2 of the contract, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Certificate of Discovery or Development was issued on May 25, 1956.

According to a Report of Review dated December 16, 1955, prepared by Mr. T. H. Breding, DMEA Auditor, the total accepted costs of the exploration amounted to $31,996.40, with the Government's contribution on a 75 per cent basis being $23,997.31.

III SCOPE OF AUDIT AND FINDINGS

A. Conference with Examining Engineer

The Examining Engineer was not available for conference. Review of the Check Sheet of Examining Engineer, dated June 24, 1957, indicates the Operator stockpiles low grade ores subject to DMEA royalties, but that adequate records are maintained on such material to protect the Government's interests. This check sheet also indicates the Operator does not commingle production subject to DMEA royalties with exempt production, and assay controls are considered adequate.

B. Audit of Settlement Statements

A considerable amount of preaudit work was accomplished in the DMEA office, Region III, Denver, Colorado, prior to the field audit. During this preaudit work a statement of royalties received was prepared from copies of liquidation settlement sheets furnished by the ore purchaser in support of royalty payments made by such purchaser directly to the regional DMEA Executive Officer. The royalty receipts were verified with deposits made by the regional Finance Officer. All data included in the statement were confirmed by detailed recomputation. This statement, which is filed as a part of my audit work papers, was reconciled with the production and sales records in the operator's office during the on-site audit.

Production of U_3O_8 during the period June 8, 1955 through May 3, 1957, was reconciled by correspondence and personal interview with the Field Operations Office of the Atomic Energy Commission at Grand Junction, Colorado. This office also confirmed the fact that the Rajah Group of claims had been certified for production bonus payments under D.U.P. C 6-C-622, which included 25 other claims. The first 10,000 lbs. of U_3O_8 produced under this certification came from the J.W.L. Fraction No. 1 Claim, which is not covered by the exploration contract. As a result of the foregoing production, there has been no production bonus available for the Rajah Group of Claims.

IV CONCLUSIONS

A summary analysis of the operator's production and sales subject to DMEA royalties follows:

	Sales to Union Carbide Nuclear Co. 6/8/55 through 5/3/57
A.E.C. License No. P 2856	
Claims: Rajah 67 and 68	
Wet Weight, Pounds	19,642,920.00
Dry Weight, Pounds	18,286,133.07
Dry Weight, Tons	9,143.07
Settlement Assays (Averages)	
U_3O_8	.29
V_2O_5	.98
Pounds U_3O_8	53,236.08
Base Payment U_3O_8	$185,232.12
Development Allowance @ 50¢	$26,618.10
Premiums: U_3O_8	
Excess of 4 lbs. per ton	
Pounds U_3O_8	16,903.63
Amount @ 75¢	$12,677.72
Haulage Allowance	
Per Wet Ton (Average)	7.61
Wet Tons	9,821.46
Amount	$74,771.31
Pounds V_2O_5	178,787.15
Amount @ 31¢	$55,424.00
Total Receiving Station Payment	$354,723.25
A.E.C. Production Bonus	None
Total Value Subject to Royalty	$354,723.25

Average Value per Ton	$38.80
IMEA Royalty Percentage	5%
IMEA Royalty Due	$17,736.17
IMEA Royalty Received	17,736.17
Balance of IMEA Royalty Due	$ 0.00

Foregoing data includes U.C.N. Co. Liquidation Settlement No. 7314 dated May 3, 1957, and Finance Officer's Certificate of Deposit No. 57-164 dated June 6, 1957.

The audit has confirmed the accuracy and propriety of the royalty payments received by the regional Finance Officer, which are applicable to ore sales during the period June 8, 1955 through May 3, 1957. It has also determined that all indicated sales of ores during the subject period have been properly accounted for.

June 25, 1957

Donald T. Finch

Donald T. Finch, Auditor

Check Sheet of Examining Engineer

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DATE	INITIALS	CODE
Docket	No. DMEA-3649	

Operator's Name Simpson Mining Company

Address 304 Main Street

Grand Junction, Colorado

Exploration Contract No. Idm-E812

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

Date 6-24-57

M. U. Salsbury
Mining Engineer

12/27/55-gla

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[redacted] MINERALS EXPLORATION ADMINISTRATION
[redacted] ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Hamilton, Harris, McDavid, Phillips, Ladd and Simpson Mining Company, a joint venture comprised of the members named in Annex II, with Julian Simpson designated to act as their agent.
P. O. Box 127, 304 Main Street
Grand Junction, Colorado

pertaining to Exploration Project Contract No. 1da-2612, Docket No. DMEA-3649, for the months of August, 1955 to November, 1955, inclusive, covering a project for the exploration of Uranium on property known as Ralph Claims located in Mesa County, Colo.

My review included an examination of the Monthly Reports (Form DF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Executive Officer, DMEA 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 reasons:

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

(b) The Monthly Reports were supported by documentary proof of the costs claimed under the contract provisions for contribution by the Government on the basis of actual costs incurred;

(c) A major portion ($25,139.00) of the costs incurred covered work performed at unit rates under independent contract; and

(d) The balance ($6,857.40) 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:		$31,996.40
Exceptions: By DMEA Finance Officer	$0.00	
Herewith	0.00	0.00
Total Accepted Cost		$31,996.40

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Twenty-three thousand, nine hundred ninety-seven and 31/100ths Dollars
** $23,997.31 **
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.

December 16, 1955

F. W. Bradley
F. W. Bradley, Auditor.

Audit Report of Review received 12/27

DMEA
Date Rec'd.

JUL 8 1955

BUREAU OF MINES
Denver, Colorado

DMEA
Date Rec'd.

JUN 10 1955

BUREAU OF MINES
Denver, Colorado

Docket copy

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JUL 18 1955

MF-200
(Revised June 1954)

Docket No. DMEA -3649

Commodity Uranium

Contract No. Idm-E 812

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 8th day of June, 1955, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Hamilton, Harris, McDavid, Phillips, Ladd, and Simpson Mining Company, a joint venture comprised of the members named in Annex II, with Julian D. Simpson designated to act as their agent,

whose mailing address is P. O. Box 127, 304 Main Street
Grand Junction, Colorado,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, ~~xxx~~ Annex II, and a map, and Power of Attorney designating Julian D. Simpson, Agent.

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

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

(b) The Operator represents and undertakes that:

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

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

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

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

of the land (lessor, seller, optionor, etc.) are attached, as follows: none. Owner's Consent to Mon exploration by Lincoln P. Fox

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of uranium. The work to be performed is described in Exhibit "A." The Operator on or before August 15, 1955 shall commence the work, and on or before March 1, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A."

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $36,004.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $27,003.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

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

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By [illegible]
Administrator, Defense Minerals Exploration Administration
Hoeflund (per) [illegible]

"Appd. Sol. Off."
Ellis
Murphy
Talbut
Selfridge
[illegible]

HAMILTON, HARRIS, MCDAVID, PHILLIPS, LADD, AND SIMPSON MINING COMPANY
(Operator)

By Julian E. Simpson

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

.....

[CORPORATE SEAL]

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

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EXPLORATION PROJECT CONTRACT
HAMILTON, HARRIS, McDAVID, PHILLIPS, IADD,
AND SIMPSON MINING COMPANY
DOCKET NO. DMEA-3649

ANNEX I

The land referred to in Article 2 of the contract form consists of five (5) unpatented lode mining claims, which are recorded in the office of the County Recorder, Mesa County, Colorado, as follows:

Claim	Book No.	Page No.
Rajah No. 61	576	343
Rajah No. 62	576	495
Rajah No. 63	576	496
Rajah No. 67	576	345
Rajah No. 68	576	346

These claims are in secs. 35 and 36, T. 51 N., R. 20 W., New Mexico Principal Meridian, and are shown on the map entitled "Figure 3. Map Showing Rajah Claims, and proposed Stage I Hole Locations, . . .," attached hereto and made a part hereof.

EXPLORATION PROJECT CONTRACT
HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD,
AND SIMPSON MINING COMPANY

ANNEX II

The members of the joint venture are as follows:

Arthur Hamilton	1410 1st. Nat. Bank Bldg., Dallas, Texas
John W. Harris	918 Milam Building, San Antonio, Texas
W. D. McDavid	918 Milam Building, San Antonio, Texas
Otis Phillips, Jr.	1410 1st. Nat. Bank Bldg., Dallas, Texas
Rex Phillips	918 Milam Building, San Antonio, Texas
Graham B. Ladd	918 Milam Building, San Antonio, Texas
Simpson Mining Company a partnership comprised of Julian E. and Alan N. Simpson	Box 127, 304 Main St., Grand Junction, Colorado

POWER OF ATTORNEY

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Docket DMEA- 3649

We, the undersigned, do hereby designate Julian E. Simpson, a partner in the Simpson Mining Company, to act as the agent of a Joint Venture consisting of:

> "Arthur Hamilton, John W. Harris, W. D. McDavid, Otis Phillips, Jr., Rex Phillips, Graham B. Ladd, and the Simpson Mining Company"

in all affairs pertaining to a proposed Defense Minerals Exploration Project Contract between the Joint Venture and the Government, such affairs to include: signing of the Contract and any Amendments thereto, rendering of monthly and final reports as required by the Contract, receipt of monies due the Joint Venture under the terms of the Contract, and payment to the Government of any and all royalties due under the terms of the Contract.

Executed this 25 th day of June, 1955.

Signed Arthur Hamilton
Arthur Hamilton

Signed John W. Harris
John W. Harris

Signed W. D. McDavid
W. D. McDavid

Signed Otis Phillips, Jr.
Otis Phillips, Jr.

Signed Rex Phillips
Rex Phillips

Signed Graham B. Ladd
Graham B. Ladd

Signed SIMPSON MINING COMPANY

By Julian E. Simpson
Partnership designated as Agent

POWER OF ATTORNEY

We, the undersigned, do hereby designate Julian E. Simpson, a partner in the Simpson Mining Company, to act in behalf of the Simpson Mining Company in all matters pertaining to a proposed Defense Minerals Exploration Project Contract Docket LMEA-3649 between the Government and a Joint Venture in which the Simpson Mining Company is a participant.

Executed this 25th day of June, 195 5.

SIMPSON MINING COMPANY

Signed Julian E. Simpson
Julian E. Simpson

Signed Alan M. Simpson
Alan M. Simpson

MF-203
Revised March 24, 1955

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JUL 18 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Simpson Mining Co., et al.
Docket No. DMEA-3049
Contract No. Idm-E
Contract Date

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of Mesa, State of Colorado, described as follows:1/ and recorded in the official records of said county

Claim	Mining District	Date of Discovery	Date of Location	Date Recorded	Book	Page
Rajah 67	Gateway	11-8-52	11-8-52	12-30-52	576	349
Rajah 68	Gateway	11-8-52	11-8-52	12-18-52	576	346
Rajah 61	Gateway	11-8-52	11-8-52	12-17-52	576	343
Rajah 62	Gateway	11-8-52	11-8-52	12-17-52	576	455
Rajah 63	Gateway	11-8-52	11-8-52	12-17-52	576	496

, 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/

None

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 24th day of June, 1955.

✓ Kathleen P. Ladd [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]

RECEIVED

EXPLORATION PROJECT CONTRACT
HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD,
AND SIMPSON MINING COMPANY
DOCKET NO. DMEA-3649

EXHIBIT "A"

Description of the Work

The object of this project is to explore the uppermost sandstone lens of the Salt Wash member of the Morrison formation for uranium ore deposits. To penetrate this member will require drill holes ranging from 330 to 460 feet in depth.

The work shall be performed in two successive stages. The Operator shall perform all the work under Stage I, and shall perform so much of Stage II as may be approved in advance in writing by the Government; such approval to be based upon the results of the completed work under Stage I.

Stage I

Stage I shall consist of:

(1) Bulldozing to recondition existing access roads, construct new roads to 13 drill sites, and prepare these 13 drill sites. The approximate locationsof the drill sites are indicated on map entitled Figure 3.

(2) From the indicated sites 13 holes, aggregating not in excess of 5619 feet, shall be drilled. The holes shall not be closer than 200 feet to any other drill hole or closer than 100 feet to the outer boundaries of the claims mentioned in Annex I of this contract.

(3) Not in excess of 65 chemical analyses for the U_3O_8, V_2O_5, and $CaCO_3$ content of samples obtained during Stage I work shall be made.

Stage II

Stage II shall consist of:

(1) Bulldozing access roads and preparing 13 drill sites in the vicinity of favorable and/or mineralized holes drilled during Stage I.

(2) Not in excess of 13 holes, aggregating not in excess of 5619 feet, shall be drilled in this Stage II. The holes shall not be closer than 70 feet to any other hole or closer than 100 feet to the outer boundaries of the claims mentioned in Annex I of this contract.

(3) Not in excess of 65 chemical analyses for the U_3O_8, V_2O_5, and $CaCO_3$ content of samples obtained during Stage II work shall be made.

GENERAL PROVISIONS

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

A supervising engineer or geologist shall be employed full time while work under this contract is being performed.

Mineralized portions of the core shall be split, the Operator using one-half for assay purposes. The other half shall be stored for Government use, with the rest of the core in boxes and properly labelled as to hole number, with markers in the core sections indicating the depths represented. If feasible, the length of core used for an individual sample should not exceed 12 inches.

The holes in both Stage I and Stage II shall be minimum AX size at their bottoms. No uncompleted hole shall be paid for by the Government.

All holes shall be drilled noncore to the inferred Brushy Basin-Salt Wash contact. On entering the Salt Wash member the holes shall be cored through the uppermost sandstone lens (which ranges from 15 to 80 feet in thickness) and the lower gray-green mudstones. The holes shall bottom when they have penetrated into the underlying red mudstone which indicates the lower horizon of the upper ore-bearing lens of the Salt Wash member of the Morrison formation.

If the footage allowed under Stage I of this contract is not sufficient to complete the thirteen (13) holes authorized for this stage, with previous written Government approval, a part of the footage authorized for Stage II may be used to complete the Stage I drilling.

In Stage II no hole shall be started unless there is sufficient footage remaining to complete the hole through the upper sandstone lens of the Salt Wash member of the Morrison formation.

Estimated Costs of the Project

Actual Costs

Stage I

Category (1) Independent Contracts

Bulldozing to recondition existing access roads, construct new roads to and prepare 13 drill sites, 14 days @ $100.00/day 1/	$ 1,400.00	
Plug bit (noncore) drilling: 4,249 feet @ $2.00/ft.	8,498.00	
Core drilling, AX-size: between depths of 200 feet - 300 feet 150 feet @ $2.75/ft.	412.50	
between depths of 300 feet - 400 feet 920 feet @ $3.00/ft.	2,760.00	
between depths of 400 feet - 500 feet 300 feet @ $3.50/ft.	1,050.00	
Stand-by time for drill contractors to log holes, etc. 10 hours @ $12.00/hr.	120.00	$14,240.50

Stage II

Category (1) Independent Contracts

Bulldozing to recondition existing access roads, construct new roads to and prepare 13 drill sites, 14 days @ $100.00/day 1/	1,400.00

1/ Includes moving bulldozer on and off property.

Plug bit (noncore) drilling: 4,249 feet @ $2.00/ft.	$ 8,498.00	
Core drilling, AX-size: between depths of 200 feet - 300 feet 150 feet @ $2.75/ft.	412.50	
between depths of 300 feet - 400 feet 920 feet @ $3.00/ft.	2,760.00	
between depths of 400 feet - 500 feet 300 feet @ $3.50/ft.	1,050.00	
Stand-by time for drill contractors to log holes, etc. 10 hours @ $12.00/hr.	120.00	$14,240.50

The Government will contribute to the requirements set forth below on the basis of the "Fixed Unit Costs" specified therefor, as these costs accrue, in lieu of actual costs. These costs include all costs of the project whatsoever except those costs of bulldozing, drilling, and stand-by time scheduled above under the category "Independent Contracts." No other categories of actual costs referred to in Article 6 are allowable.

Fixed Unit Costs

Stage I

65 chemical analyses for U_3O_8, V_2O_5, and $CaCO_3$ @ $6.00/each sample	390.00	
Incidental allowance 2/ for each feet of drilling completed - 5,619 feet @ $0.60/ft.	3,371.40	$ 3,761.40

2/ The "incidental allowance" includes all costs of the project whatsoever that are not included in the estimates for bulldozing, drilling, stand-by time, and the fixed unit cost for analyses, and is in lieu of Categories (2) through (7) of actual costs under Article 6(a) of the contract. It includes such items as supervision, engineering, equipment, materials and supplies, compensation insurance, etc.

Stage II

65 chemical analyses for U_3O_8, V_2O_5, and $CaCO_3$ @ $6.00/each sample	$ 390.00	
Incidental allowance 3/ for each foot of drilling completed - 5619 feet @ $0.60/ft.	3,371.40	$ 3,761.40

S U M M A R Y

Estimated Total Costs, Stage I	$18,001.90	
Estimated Total Costs, Stage II	18,001.90	
Estimated Total Cost of Project (rounded to)		$36,004.00
Government Participation @ 75%		$27,003.00

3/ Same as footnote 2/.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 3649

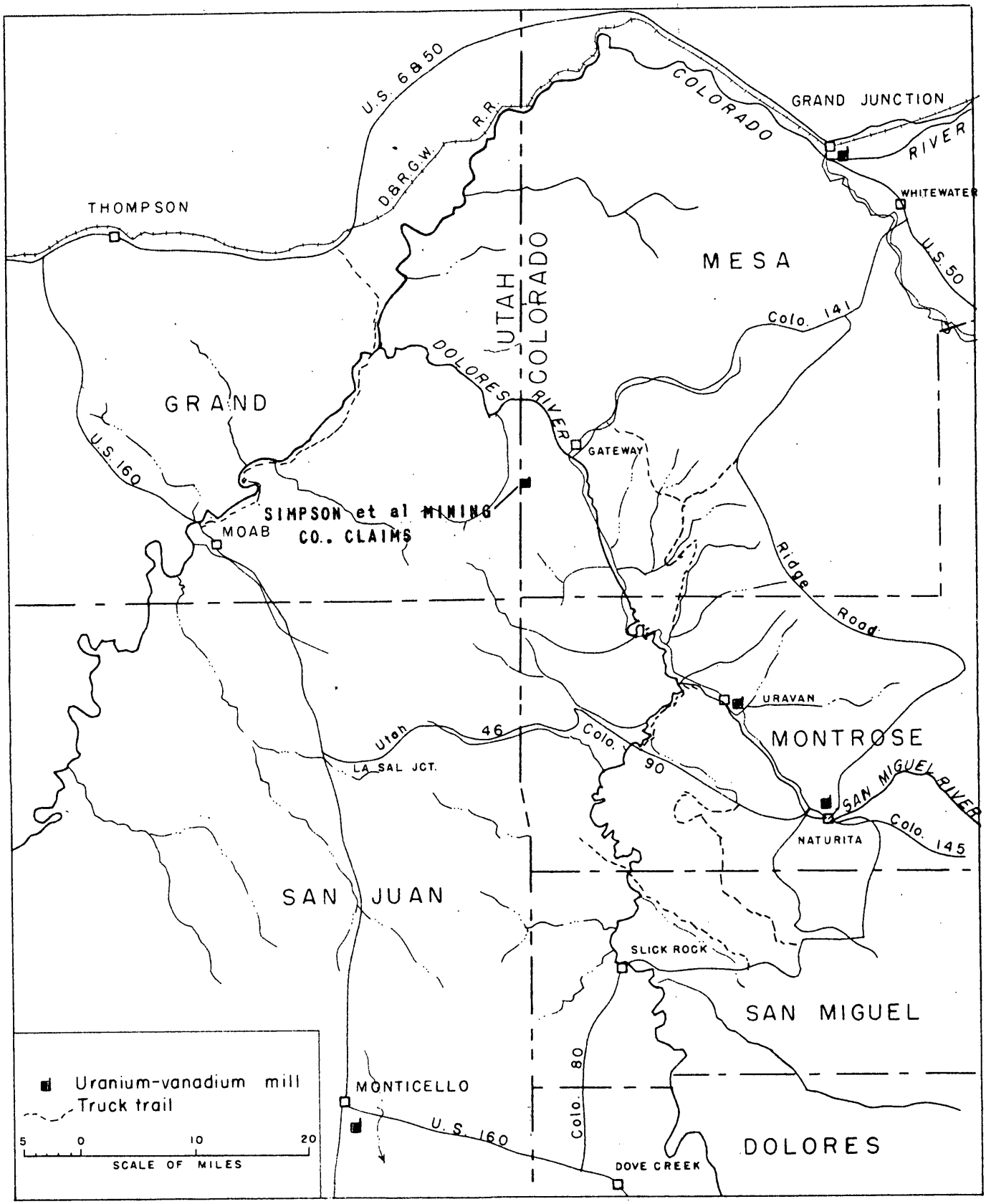


Figure 1. INDEX MAP OF PART OF COLORADO PLATEAU SHOWING LOCATION OF THE RAJAH GROUP OF CLAIMS, SIMPSON et al MINING CO., BEAVER MESA, MESA COUNTY, COLORADO

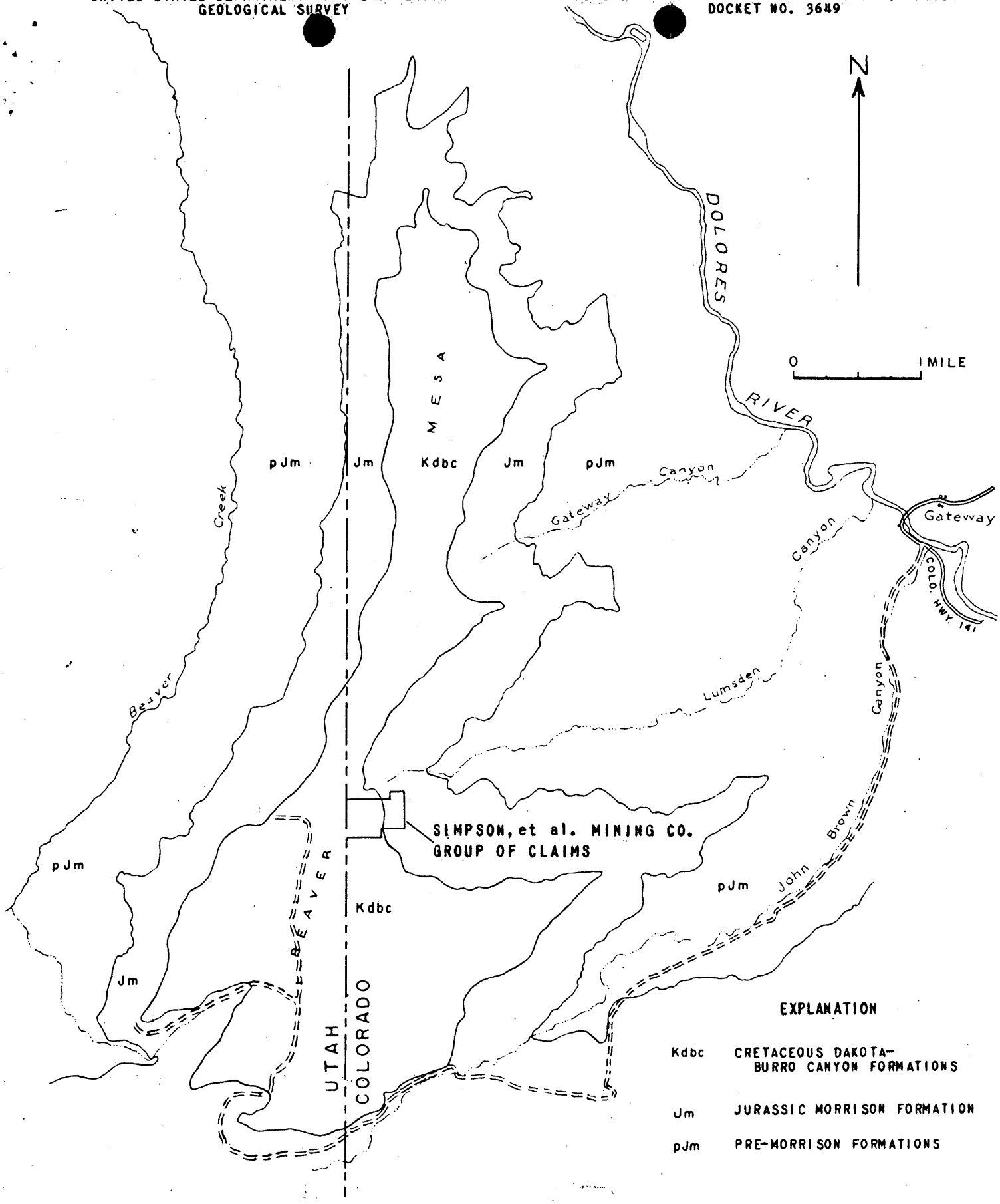
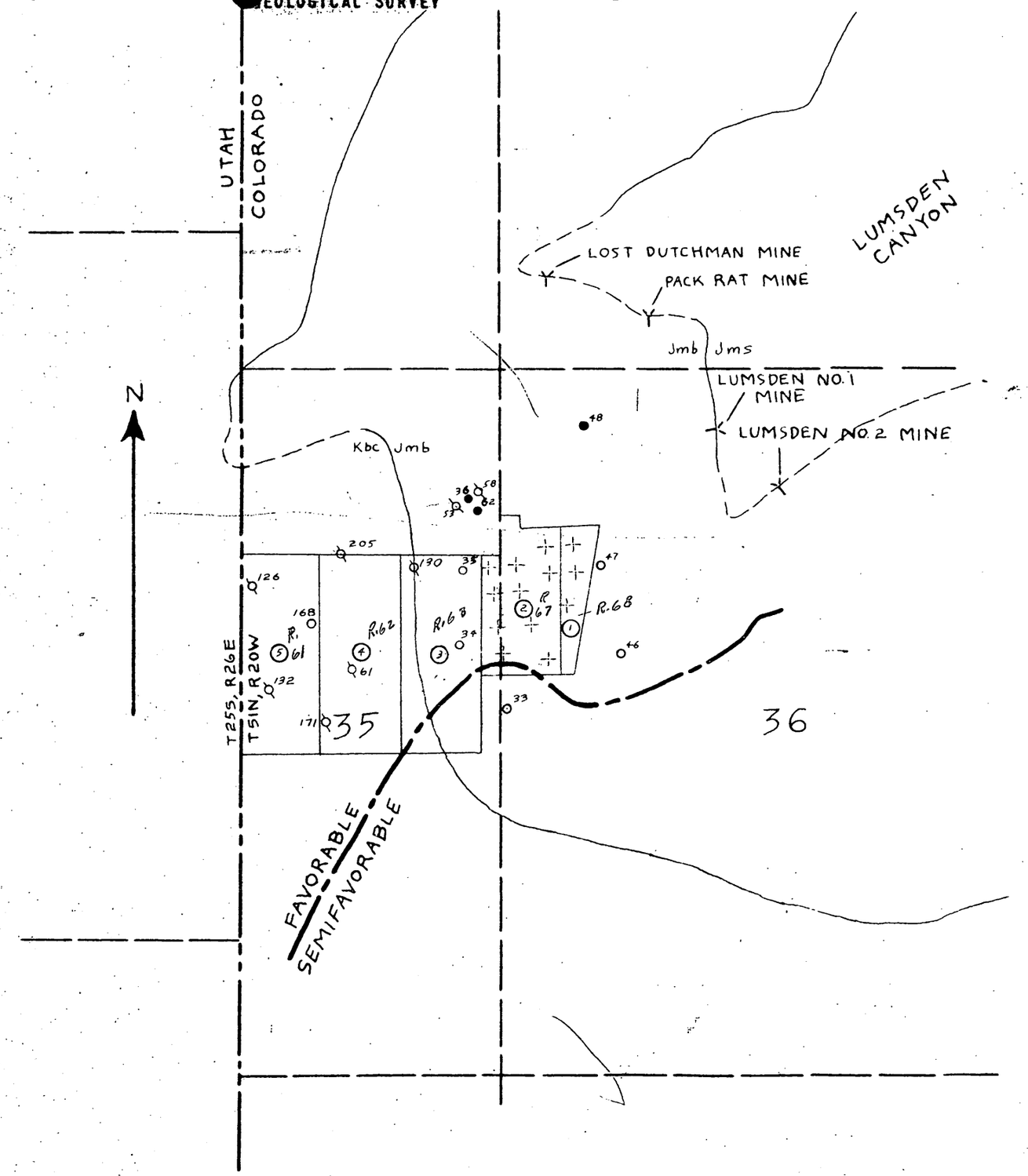


Figure 2. INDEX MAP SHOWING LOCATION OF THE RAJAH 61-63 AND RAJAH 67,68 GROUPS OF CLAIMS SIMPSON, et al. MINING CO., BEAVER MESA, MESA COUNTY, COLORADO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 3649



CLAIM INDEX

1. RAJAH NO. 68
2. RAJAH NO. 67
3. RAJAH NO. 63
4. RAJAH NO. 62
5. RAJAH NO. 61

EXPLANATION

Kbc / Jmb — FORMATION CONTACT BETWEEN CRETACEOUS BURRO CANYON FORMATION (Kbc) AND BRUSHY BASIN MEMBER OF THE JURASSIC MORRISON FORMATION (Jmb): DASHED WHERE CONCEALED

Jmb / Jms — FORMATION CONTACT BETWEEN THE BRUSHY BASIN (Jmb) AND SALT WASH (Jms) MEMBERS OF THE JURASSIC MORRISON FORMATION

MINE

④ — CLAIM BOUNDARY, LOCATED APPROXIMATELY, AND INDEX NUMBER

36 — LAND SECTION NUMBER, LAND LINES LOCATED APPROXIMATELY

DIAMOND-DRILL HOLES, U.S. GEOLOGICAL SURVEY

47 — BARREN (NOS. 33, 34 SEMIFAVORABLE ALL OTHERS FAVORABLE)

58 — WEAKLY MINERALIZED

48 — ORE-BEARING

LOCATION OF PROPOSED HOLE, STAGE I

1000 0 2000 FEET

Figure 3. MAP SHOWING RAJAH CLAIMS, AND PROPOSED STAGE I HOLE LOCATIONS, SIMPSON, et al MINING COMPANY, MESA COUNTY, COLORADO

SIMPSON MINING COMPANY
304 MAIN STREET
P. O. BOX 127
GRAND JUNCTION, COLORADO

January 21, 1955

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 24 1955

Administrator
Defense Minerals Exploration Administration
Department of the Interior
Interior Building
Washington 25, D. C.

Registered Mail, Return Receipt Requested

Gentlemen:

We enclose a DMEA application consisting of four (4) copies of Form MF-103 completed in detail.

Please refer all correspondence to the above address concerning this application.

Very truly yours,

Hamilton, Harris, McDavid, Phillips,
Ladd and Simpson Mining Company

By: Julian E. Simpson
Julian E. Simpson

JES:b
Enclosures
cc: W. D. McDavid
Arthur Hamilton

DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
RECEIVED
JAN 24 1955

APPLICATION FOR DMEA PROJECT ON RAJAH NO. 67 AND NO. 68 GROUP

Beaver Mesa Area of Gateway Mining District
Mesa County, Colorado

Submitted to
United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

By
Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company
P. O. Box 127, 304 Main Street, Grand Junction, Colorado

January 21, 1955

Application For DMEA Project On Rajah No. 67 And No. 68 Group

By

Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company
P. O. Box 127, 304 Main Street, Grand Junction, Colorado

DEPARTMENT OF THE INTERIOR
Application
OCT 24 1955

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Application For DMEA Project On Rajah No. 67 And No. 68 Group
By
Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company
P. O. Box 127, 304 Main Street, Grand Junction, Colorado

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Application For DMEA Project On Rajah No. 67 And No. 68 Group
By
Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company
P. O. Box 127, 304 Main Street, Grand Junction, Colorado

LIST OF SCHEDULES

Schedule 1	Stage 1 Drill Hole Depths
Schedule 2	Stage 1 Drilling Summary
Schedule 3	Cost of Independent Contracts
Schedule 4	Estimated Costs Under Headings 6(b, c, d, g) MF-103
Schedule 5	Summary

LIST OF EXHIBITS

Exhibit 1	Drill Hole Log - U.S.G.S. Hole Number BV-33
Exhibit 2	Drill Hole Log - U.S.G.S. Hole Number BV-34
Exhibit 3	Drill Hole Log - U.S.G.S. Hole Number BV-35
Exhibit 4	Summary of Information - U.S.G.S. Drill Hole Numbers BV-36, BV-46, BV-47, and BV-62

LIST OF PLATES

Plate No. 1	General Location Map
Plate No. 2	U.S.G.S. Geologic Map Beaver Mesa Area
Plate No. 3	Rajah No. 67 and No. 68 Group Claim Map Showing Location of Stage 1 Drill Holes (in map pocket)

in map folder

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. 3649
Metal or Mineral Uranium
Date Received 1-24-55
Estimated Cost $40,744.14
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: Hamilton, Harris, McDavid, Phillips, Ladd And Simpson Mining Company - Post Office Box 127, 304 Main Street, Grand Junction, Colorado.

(*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 Unpatented lode mining claims, Rajah No. 67 and Rajah No. 68 recorded in Book 576 at pages 345 and 346, Mesa County, Colorado.

(*b*) State any mine name by which the property is known. Rajah No. 67 and No. 68 Group

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

(*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 There are no liens or encumbrances on the land.

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

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

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

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

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

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

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

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

(*c*) The work will start within 30 days and be completed within 6 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated January 21, 1955

Hamilton, Harris, McDavid, Phillips,
Ladd & Simpson Mining Company
(Applicant)

By Julian E. Simpson
Julian E. Simpson

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

Application For DMEA Project On Rajah No. 67 And No. 68 Group
By
Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company
P. O. Box 127, 304 Main Street, Grand Junction, Colorado

OCT 24 1955

ABSTRACT

This is an application for a Defense Minerals Exploration Administration project contract of the short form or unit cost type. The proposed project consists of 26 holes to be drilled on the Rajah No. 67 and No. 68 Claims in the Beaver Mesa area of Gateway Mining District, Mesa County, Colorado. The total footage of these holes is 10,694, and the unit cost is $3.81 per foot making the total cost of the exploration project $40,744.14. The applicants will furnish 25% of this total cost or $10,186.04. The Defense Minerals Exploration Administration is asked to loan the rest or $30,558.10.

1. NAME OF APPLICANTS

(a) HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD AND SIMPSON MINING COMPANY--POST OFFICE BOX 127, 304 MAIN STREET, GRAND JUNCTION, COLORADO.

(b) JOINT VENTURE consisting of individuals and a partnership organized in the State of Colorado.

(c) OMITTED

(d) FOLLOWING IS A LIST OF MEMBERS OF THE JOINT VENTURE

Name of Member	Address
Arthur Hamilton	1410 1st. Nat. Bank Bldg., Dallas, Texas
John W. Harris	918 Milam Building, San Antonio, Texas
W. D. McDavid	918 Milam Building, San Antonio, Texas
Otis Phillips, Jr.	1410 1st. Nat. Bank Bldg., Dallas, Texas
Rex Phillips	918 Milam Building, San Antonio, Texas
Graham B. Ladd	918 Milam Building, San Antonio, Texas
Simpson Mining Company	Box 127, 304 Main St., Grand Junction, Colo.

The Simpson Mining Company is a partnership organized in the State of Colorado and consisting of two members as follows:

Application For DMEA Project On Rajah No. 67 And No. 68 Group
By
Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company
P. O. Box 127, 304 Main Street, Grand Junction, Colorado

Julian E. Simpson 430 North 16th Street, Grand Junction, Colorado
Alan M. Simpson 415 Hall Avenue, Grand Junction, Colorado

2. GENERAL

The following information is submitted in accordance with the instructions contained in Defense Minerals Exploration Administration Form MF-103. The lettered and numbered headings refer to those in MF-103.

3. APPLICANTS' PROPERTY RIGHTS

(a) LEGAL DESCRIPTION

The land included in this application and on which the exploration work is to be performed consists of 2 contiguous unpatented mining claims known as the Rajah No. 67 and Rajah No. 68. These claims are located in Sections 35 and 36, T51N, R20W, New Mexico Principal Meridian, on Beaver Mesa in the Gateway Mining District, in Mesa County, Colorado. The location of the claims with respect to section lines is shown on Plates No. 2 and No. 3.

As shown on Plate No. 3, the Rajah No. 67 and No. 68 Group is adjoined by lands owned by parties other than the applicants, on the north: by deeded land (Lot 1, Section 35, T51N, R20W, NMPM); the Shaking Quakie Fraction, a junior claim; Pack Rat No. 1 and No. 2, both senior claims, and on the east: by Johnny May No. 3, a senior claim, and on the south: by La Sal No. 8, a senior claim, and on the west by Rajah No. 63, a claim owned by the applicants but not included in this project. Portions of Rajah No. 67 and 68 claims totaling about 23 acres overlapping onto prior claims are exempted from this application and from the exploration work. The exempted area shown on Plate No. 3 subtracted from the overall area of Rajah No. 67 and No. 68 Claims leaves a total of about 18 acres to be included in this project.

Application For DMEA Project On Rajah No. 67 And No. 68 Group
By
Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company
P. O. Box 127, 304 Main Street, Grand Junction, Colorado

(b) NAME OF PROPERTY

The property will be referred to in this application and in future correspondence as the Rajah No. 67 and No. 68 Group.

(c) INTEREST IN LAND

The applicants are the owners of the Rajah No. 67 and No. 68 Group.

(d) OMITTED

(e) LIENS OR ENCUMBRANCES

There are no liens or encumbrances against the property.

(f) RECORD OF TITLE

Rajah No. 67 and No. 68 were located by the applicants in November 1952, to wit:

Location Certificate	Date of Location	Date of Recording	Book	Page
Rajah No. 67	11-8-52	12-30-52	576	345
Rajah No. 68	11-8-52	12-30-52	576	346

An Affidavit of Annual Labor was filed for Rajah No. 67 and No. 68 on June 29, 1954 and recorded in Book 609 at Page 227.

4. PHYSICAL DESCRIPTION

(a) OPERATIONS

There are no mine workings on the Rajah No. 67 and No. 68 Group and no exploration work has been done to date.

The United States Geological Survey has drilled nearby holes on three sides of the group. These holes prefixed "BV" are shown on Plate No. 3. United States Geological Survey drill logs of BV-33, 34, and 35 are included with this application as Exhibits 1, 2, and 3. A summary of geologic information, obtained from the United States Geological Survey, for drill holes BV-36, BV-46, BV-47 and BV-62 is shown on Exhibit 4.

(b) PRODUCTION AND ORE RESERVES

There has been no past production from the Rajah No. 67 and No. 68 Group and at present there are no proven ore reserves.

(c) GEOLOGIC FEATURES

Stratigraphy

The entire surface of the Rajah No. 67 and No. 68 Group is in the Brushy Basin member of the Morrison formation. In the Gateway District most commercial Morrison uranium deposits occur in the upper portion of the Salt Wash member of the Morrison. All holes will be bottomed in red shale underlying the ore bearing sandstone bed which occurs in the upper part of the Salt Wash. (See Section on Plate No. 3) The estimated depth of the holes is based on a study of drill hole data from nearby United States Geological Survey holes on three sides of the group.

Structure

The Rajah No. 67 and No. 68 Claims lie on the southwest limb of a syncline which strikes about N 45° W. The dip of the beds in the vicinity of the claims is about 2 degrees to the northeast.

Mineralization and Ore Deposits

There are no known ore deposits on the Rajah No. 67 and No. 68 Group.

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The nearest known ore deposit to the group is in the southeast corner of Lot 1, Section 35. (See Plate No. 3) United States Geological Survey drill holes BV-36 and BV-62 are reportedly in ore as are also several other holes drilled as offsets to them by the lessee of the property who is now driving a tunnel about 1800 feet in length to tap the ore body for mining.

The Lumsden No. 1 Mine of the United States Vanadium Company which lies about 800 feet northeast of the Rajah No. 67 and No. 68 Group is in production and shipping about 150 tons of ore per month. A recent drilling program on the south one-half of the Pack Rat No. 1 Claim by Mining, Inc. has developed substantial reserves.

Reasons for Wishing to Explore

The Rajah No. 67 and No. 68 Claims lie within the Uravan Mineral Belt (See Plate No. 1) which is defined by the United States Geological Survey as "a narrow, elongate area in southwestern Colorado in which carnotite deposits in the Morrison formation have a closer spacing, larger size and higher grade than those in adjoining areas. The belt extends from Gateway through Uravan to Slick Rock."

The drilling data obtained by the United States Geological Survey in the near vicinity of the Rajah No. 67 and No. 68 Group indicates the property is favorable.

A recent drilling program by Mining, Inc. on the south half of the Pack Rat No. 1 Claim indicates that an ore body is trending to the southeast in the direction of Rajah No. 67 and No. 68.

It is the opinion of the applicants that the Rajah No. 67 and No. 68 Group is geologically favorable for the occurrence of commercial uranium deposits, and merits the exploration program as set out in this application.

(d) ACCESSIBILITY

The Rajah No. 67 and No. 68 Group lies about 12 miles by road from Colorado State Highway 141 where it crosses the Dolores River at Gateway, Colorado. The 12 miles of access road going up John Brown Canyon from the highway is a much used mine road serving the Beaver Mesa area.

From the Rajah No. 67 and No. 68 Group it is about 48 miles to the United States Vanadium Company mill at Uravan, Colorado, and 68 miles to the Climax Uranium Company mill at Grand Junction, Colorado.

The nearest permanent town is Gateway, Colorado--12 miles from the property. Equipment and supplies may be obtained there or at Uravan or Grand Junction, which is the nearest rail shipping point.

(e) AVAILABILITY OF MANPOWER, EQUIPMENT, SUPPLIES, ETC.

Materials, supplies equipment, power and skilled manpower necessary for the project are all readily available in the area and will be provided by private contractors.

Water for drilling may be hauled from a spring one-fourth of a mile from the property or from John Brown Creek, a distance of 3.5 miles from the property.

5. THE EXPLORATION PROJECT

(a) URANIUM is the mineral for which this project will explore.

(b) PROPOSED WORK

The proposed exploration project will consist of a total of 26 holes, drilled in two stages as indicated below.

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Stage 1 Drilling

The first stage will consist of 13 drill holes (HR1-13) at locations shown on Plate No. 3. These holes are placed on 200 to 300 foot centers and will define the areas most favorable for the occurrence of ore deposits.

Stage 2 Drilling

The second stage will consist of 13 drill holes (HR14-26), not shown on Plate No. 3, to be drilled in the areas defined as most favorable by Stage 1 drilling. The spacing interval for these holes will be from 70 to 150 feet. Mineralized areas should be tested by holes drilled on 70 to 100 foot intervals to gain information necessary in making a satisfactory estimate of ore tonnage and grade.

The selection of locations for all Stage 2 drill holes will be made with the approval of the Defense Minerals Exploration Administration Field Team as the geologic data is accumulated. It is likely that many of the Stage 2 holes will be offsets on ore or mineralized holes drilled during Stage 1. Nevertheless, all of Stage 2 holes will be drilled in areas having favorable geology as determined by Stage 1 drilling.

Geologic Control of Drilling

A sampler will be employed to supervise the logging and sampling. The driller will empty the core barrel from each run into a trough where it will be closely examined by the sampler for mineralization and checked for radioactivity. Where any trace of mineralization is found the entire core from that run will be placed in a covered core box and properly marked. All barren core will be carefully laid out and marked for depth. The driller will keep an accurate drill log. The sampler will check against the driller's log and will keep a thorough and accurate log of each hole.

All samples will be carefully described in a sample book and sent to custom assayers for percentage determination of U_3O_8, V_2O_5, and $CaCO_3$.

The guides to be used in determining the favorableness of rocks intersected in holes will be those used by the United States Geological Survey and the United States Atomic Energy Commission, namely: the thickness of sandstone, presence of carbon, color of mudstone lenses contained in sandstones, and color of basal mudstone.

(c) THE WORK will start within 30 days and be completed within 6 months from the date of an exploration project contract.

(d) ABILITY OF APPLICANTS

The exploration project will be supervised by the Simpson Mining Company. Julian E. Simpson, manager, is a mining engineer graduate of the Colorado School of Mines. During 1947, Mr. Simpson worked for the United States Vanadium Company at the Rifle Vanadium Mine as an engineer. In 1948 he was transferred to the Uravan operations of United States Vanadium Company and worked there until September, 1952. At Uravan Mr. Simpson was Assistant Mine Superintendent and was in direct charge of all United States Vanadium Company's uranium exploration programs in the area for 4 years. In October, 1952 Mr. Simpson and his brother, Alan M. Simpson, also a mining engineer, organized the Simpson Mining Company, a firm which has successfully managed many uranium properties in Western Colorado and eastern Utah during the last two years.

6. ESTIMATE OF COSTS

The applicants wish to have this exploration project contract placed on a unit cost basis. Schedule 5 shows the exact amount bid per unit

by the applicants for performing the exploration work.

(a) INDEPENDENT CONTRACTS

All drilling and bulldozer work will be performed by independent contractors.

Drilling will be done by a private contractor. Prices quoted by drilling firms active in the area are used in Schedule 2 and in Schedule 3 in the unit cost columns. The depths of the 13 holes to be drilled during Stage 2 are expected to correspond to the estimated depths of the 13 holes to be drilled during Stage 1. Accordingly, the cost of Stage 2 ($12,102.25) is the same as the cost of Stage 1 ($12,102.25) making the total cost of drilling $24,204.50.

Standby Time--Drilling contractors charge $12.00 per hour for delays caused by us. It is estimated that 45 minutes will be required to obtain the radiometric log for each hole. During this time the contractor's drill rig will be on standby time and will be unable to move onto the next drill site. For the 26 holes this standby time will add up to a total of 19.5 hours and a cost of $234.00.

Bulldozers will be used for building drill access roads and drill sites. A suitable bulldozer and operator may be obtained for $100.00 per day. It will be necessary to haul a bulldozer onto the property at least 3 times during the project at a cost of $100.00 for each trip. It is estimated that the bulldozer will be used a total of 25 days on the property building drill roads and drill sites during the project. The total cost of contracting the bulldozer and operator will be $2,800.00.

(b) LABOR, SUPERVISION, CONSULTANTS

The estimated cost of supervision of the project including engineering and geological consultants is $650.00 per month plus

expenses. (See Schedule 4) A draftsman and stenographer will be employed on an hourly basis to prepare necessary monthly project reports. (See Schedule 4) A field assistant will be employed at a minimum of $14.00 per day to help with surveying, sampling, and logging.

(c) OPERATING MATERIALS AND SUPPLIES

The cost of office and drafting supplies, reproduction of maps, drill logs for monthly reports and other correspondence to DMEA is estimated at $100.00 per month. (See Schedule 4) The cost of core boxes, drill hole stakes, drill log forms, survey stakes, timber scribe, sample bags, note books and other field supplies is estimated at $50.00 for the entire project. (See Schedule 4)

(d) OPERATING EQUIPMENT

All operating equipment will be provided by independent contractors or by the applicants except as follows: a house trailer will be rented for $25.00 per month to provide living quarters for the field assistant and a field office for safe keeping of field maps and records. A geiger counter and reel assembly will be rented for probing holes at a cost of $100.00 per month. (See Schedule 4)

(e) REHABILITATION AND REPAIRS

None needed.

(f) NEW BUILDINGS, IMPROVEMENTS, INSTALLATIONS

None needed.

(g) MISCELLANEOUS

The expense of accounting and supervision of office work

in connection with the project is estimated at $100.00 per month.

Workmen's compensation, employer's liability insurance, and payroll taxes for field assistant, draftsman and stenographer are estimated at 10% of $542.00 per month or $54.20 per month. (See Schedule 4)

Analytical work for the project is estimated at 130 samples. Each sample will be run for % U_3O_8 (cost $3.50 per sample); % V_2O_5 (cost $1.50 per sample) and % $CaCO_3$ (cost $1.00 per sample). The total cost for analytical work will be $6.00 per sample or $780.00 for the project.

(h) CONTINGENCIES

Independent Contracts

The estimate made for building drill roads and drill sites is based on an hourly rate for bulldozer hire. In the event some of the desired drill hole locations fall in areas of difficult terrain, where solid rim rock or large boulders are exposed, it may be necessary to do rock drilling and blasting. 20% of the estimated cost of bulldozer contract (20% of $2,800.00) or $560.00 is added to cover this contingency. (See Schedule 5)

Labor, Supervision and Consultants

Labor, supervision and consultants are paid on an hourly or monthly basis and if for any reason the project is prolonged beyond the estimated 6 month period this cost will be increased. An estimated 10% is added to cover such possible increase. (See Schedule 5)

Operating Materials and Supplies

Extension of the project beyond the 6 month period allowed

for completion or the use of more supplies and materials because of unexpected problems encountered would easily increase this item 10%. (See Schedule 5)

Operating Equipment

In the course of probing holes, the probes, which cost $85.00 each, are sometimes stuck and cannot be recovered, resulting in a total loss of the probe and cable attached which cost $0.14 per foot. The loss of two probes and cable during the project would cost $250.00. Accordingly, this item is increased 33 1/3%. (See Schedule 5)

APPLICANTS' SHARE OF COST OF THE PROJECT

(a) THE APPLICANTS are prepared to assume 25% ($10,186.04) of the total cost of the project ($40,744.14) in accordance with DMEA regulations concerning Government participation.

(b) THE APPLICANTS will perform all of the necessary work and pay for all of the labor and materials. The DMEA will reimburse the applicants by paying 75% of the cost of each unit of work performed as set out in Schedule 5.

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SCHEDULE 1

STAGE 1 DRILL HOLE DEPTHS

Drill Hole Number	Drill Hole Location	Estimated Collar Elevation	Estimated Bottom Elevation	Estimated Hole Depth
HR- 1	Rajah No. 67	7232	6770	462
HR- 2	Rajah No. 67	7236	6785	451
HR- 3	Rajah No. 67	7212	6780	432
HR- 4	Rajah No. 67	7184	6790	394
HR- 5	Rajah No. 68	7139	6800	339
HR- 6	Rajah No. 67	7246	6795	451
HR- 7	Rajah No. 67	7214	6790	424
HR- 8	Rajah No. 67	7187	6795	392
HR- 9	Rajah No. 68	7150	6800	350
HR-10	Rajah No. 67	7256	6800	456
HR-11	Rajah No. 67	7206	6800	406
HR-12	Rajah No. 68	7186	6800	386
HR-13	Rajah No. 67	7209	6805	404
			TOTAL	5347

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SCHEDULE 2

STAGE 1 - DRILLING SUMMARY

Hole Number	Estimated Total Depth	Estimated Non-Core Drilling	Est. Core Drilling 200'-300'	Est. Core Drilling 300'-400'	Est. Core Drilling 400'-500'
HR- 1	462	362		38	62
HR- 2	451	351		49	51
HR- 3	432	332		68	32
HR- 4	394	294	6	94	
HR- 5	339	239	61	39	
HR- 6	451	351		49	51
HR- 7	424	324		76	24
HR- 8	392	292	8	92	
HR- 9	350	250	50	50	
HR-10	456	356		44	56
HR-11	406	306		94	6
HR-12	386	286	14	86	
HR-13	404	304		96	4
TOTAL	5347	4047	139	875	286
Price Per Foot		2.00	2.75	3.00	3.50
		$8094.00	$382.25	$2625.00	$1001.00

Total Cost $12,102.25

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SCHEDULE 3

COST OF INDEPENDENT CONTRACTS

	Units	Number of Units	Cost/Unit	Total Cost/Item	Grand Total
Drilling Contract					
Stage 1 Drilling See Schedule 2	Feet	5347	$ 2.26	$12,102.25	$12,102.25
Stage 2 Drilling					
13 Holes	Feet	5347			
Non-Core Drilling	Feet	4047	2.00	8,094.00	
200' - 300' Core Drilling	Feet	139	2.75	382.25	
300' - 400' Core Drilling	Feet	875	3.00	2,625.00	
400' - 500' Core Drilling	Feet	286	3.50	1,001.00	
Total Stage 2 Drilling	Feet	5347		$12,102.25	$12,102.25
Standby Time	Hours	19.5	12.00	234.00	234.00
Bulldozer Contract					
Moving on and off	Rd. Trip	3	100.00	300.00	
Rental with operator	Days	25	100.00	2,500.00	
				$ 2,800.00	$ 2,800.00
Total Estimated Costs of Independent Contracts	Feet	10,694	2.55		$27,238.50

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SCHEDULE 4
ESTIMATED COST UNDER HEADINGS 6(b), 6(c), 6(d), 6(g)
FORM MF-103

Heading	Cost Per Hour	Cost Per Day	Cost Per Month	Cost Per Project	Cost Per Foot
6(b) Labor, Supervision & Consultants					
Supervision, Engineering, Geological Fees			$650.00	$3,900.00	
Supervision, Engineering, Geological Expenses		$10.00	250.00	1,500.00	
Draftsman 48 hrs. per month	$3.00		144.00	864.00	
Stenographer 24 hrs. per month	2.00		48.00	288.00	
Sampler & Field Assistant		14.00	350.00	2,100.00	
Total 6(b) (MF-103) 10,694 Feet				$8,652.00	$0.809
6(c) Operating Materials & Supplies					
Office			100.00	600.00	
Field Supplies				50.00	
Total 6(c) (MF-103) 10,694 Feet				$ 650.00	$0.061
6(d) Operating Equipment					
Trailer - Rent			25.00	150.00	
Hole probing unit - Rent			100.00	600.00	
Total 6(d) (MF-103) 10,694 Feet				$ 750.00	$0.070
6(g) Miscellaneous					
Accounting Expense			100.00	600.00	
Insurance & Payroll Taxes			54.20	325.20	
Analytical (130 samples @ $6.00)				780.00	
Total 6(g) (MF-103) 10,694 Feet				$1,705.20	$0.160

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SCHEDULE 5

SUMMARY

Description	Units	Number of Units	Cost/Unit	Total Cost/Item	Grand Total
a. Independent Contracts (Sch. 3)	Feet	10,694	$ 2.547	$27,238.50	
b. Labor, Supervision and Consultants (Sch. 4)---------	Feet	10,694	0.809	8,652.00	
c. Operating Materials and Supplies (Sch. 4)----------	Feet	10,694	0.061	650.00	
d. Operating Equipment (Sch. 4)	Feet	10,694	0.070	750.00	
e. Rehabilitation & Repairs	None				
f. New Buildings, Improvements	None				
g. Miscellaneous (Sch. 4)	Feet	10,694	0.160	1,705.20	
h. Contingencies					
For (a) above (20% of $2,800.00) (Schedule 3)----------				560.00	
For (b) above - 10%				865.20	
For (c) above - 10%				65.00	
For (d) above - 33 1/3%				250.00	
Calculated Unit Cost	Feet	10,694	3.809		$40,735.90
Calculated Cost of Project Using Unit Cost Bid----------			3.81		40,744.14
Cost of Project During DMEA Participation----------					40,744.14
Less 25% Paid by Applicants----					10,186.04
Amount of DMEA Loan Requested					30,558.10

DRILL HOLE LOG

SIMPSON & WOODARD EXPLORATION CO.

Type of Drill: Core

Logged For: U.S.G.S.

Drill-hole No.: BV-33

COORDINATES

Claim: LaSal No. 8

Total depth: 434.4

North 19,745 East 110,490

Date started:

Collar elev.: 7237.9 T P

Tie: Sec.36,T51N,R20W NMPM

Date completed: 6-26-53

Area: Beaver Mesa

Logged by: USGS A.R.M.

Summary of log: Semi-favorable OBSS 365-410' Thick 45'; SS color Wh.; MS under OBSS R; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
90.0	270.0					Plug bit - no core
270.0	274.4	MS	R/Gy		N	
274.4	284.4	MS/SS	R	F	N	
284.4	290.4	SS	R	MC	N	
290.4	305.0	SS	R/Wh	C	N	Long
305.0	314.7	MS	Gy		N	
314.7	325.4	MS	R/Gy		N	90% R, MS
325.4	331.7	SS	Wh	M	N	R, MS streak; SS qztc.
331.7	365.3	MS/SS	R/Wh	F	N	R, MS; mot by Gy. MS
365.3	370.8	SS	Wh/R	MF/F	N	
370.8	410.4	SS	Wh	M/MF	S	3' Cbn. from 404.2-407.2
410.4	414.6	ST	R/Gy		N	
414.6	430.2	ST/MS	Gy/R		N	ST mot. W/R, MS
430.2	434.4	SS	Gy	VF	N	
						Probed from 259.5'-432.2' barren

γ-Ray Log 0 — 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY U_3O_8	LAB ASSAY V_2O_5	FIELD EST. U_3O_8	FIELD EST. V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Exhibit 1

Hole No. BV-33

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DRILL HOLE LOG

SIMPSON & WOODARD EXPLORATION CO.

Type of Drill: Core

Logged For: U.S.G.S.

Drill-hole No.: BV-34
Total depth: 464.5'
Collar elev.: 7258.9 T ..... P
Area: Beaver Mesa

COORDINATES
North: 20,230 East: 110,145
Tie: Sec.35, T51N, R20W

Claim: Rajah #63
Date started: .....
Date completed: 6-26-53
Logged by: USGS - A.R.M.

Summary of log: Semi-favorable OBSS 396.4-446.4' Thick 50' ; SS color Wh. ; MS under OBSS S,Gn;Sm Cbn. N

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	300.0					Plug bit - no core
300.0	301.9	MS	R		N	
301.9	310.0	SS	LR	F	N	
310.0	315.0	MS	R		N	S; Gn. MS Sm.
315.0	317.6	SS	LR	F	N	
317.6	320.0	MS//SS	R	MC	N	C-Cong. at base; Friable
320.0	330.4	SS	LYw	MC	N	
330.4	339.7	MS	Gn		N	
339.7	345.1	MS	R		N	S; Gn. Mot
345.1	357.4	SS	Wh	F	N	
357.4	384.7	MS	R//Gn		N	R.Gn Interbedded; A; mot.
384.7	392.1	ST	R		N	Int.; R; MS S; Gn. Mot.
392.1	393.0	SS	Wh;mot.R	MF	N	
393.0	396.4	SS	Wh	MF	N	
396.4	446.4	SS	Wh	MF	N	S; frac.
446.4	447.8	MS	R		N	
447.8	453.7	SS	LR	F	N	A; Gn. mot.
453.7	462.6	MS	R//Gn		N	
462.6	464.5	SS	Gy	F	N	

Probed 260.5'-462.3'

Base	Thick	%eU3O8
262.5		
264.4	1.9	< 0.010
452.3		
453.3	1.0	< 0.010

γ-Ray Log (0 – 1000)

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Exhibit 2

Hole No. BV-34

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EXHIBIT 4

SUMMARY OF INFORMATION ON U.S.G.S. DRILL HOLES

Hole Number	Description	Ore-Bearing Sandstone From	Ore-Bearing Sandstone To	Basal Green Mudstone
BV-36	Favorable	377 Ft.	414 Ft.	6.0 Feet
BV-46	Favorable	214 Ft.	264 Ft.	0 Feet
BV-47	Favorable	197 Ft.	242 Ft.	1.1 Feet
BV-62	Favorable	403 Ft.	440 Ft.	12.0 Feet

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill: Core

Logged For: U.S.G.S.

Drill-hole No.: BV-35
Total depth: 452.1'
Collar elev.: 7229.2 T P
Area: Beaver Mesa

COORDINATES
North 20.780 East 110,180
Tie Sec.35, T51N, R20W

Claim: Rajah #63
Date started:
Date completed: 7-2-53
Logged by: USGS - A.R.M.

Summary of log: Favorable ; OBSS 376-415' Thick 39' ; SS color Wh. ; MS under OBSS Gn. ; Cbn. S.

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	310.0					Solid bit - no core
310.0	318.0	SS	Wh	F-M	N	Friable
318.0	370.5	MS	R		N	
370.5	372.1	MS	Gn		N	
372.1	374.2	SS	LGn	VF	N	
374.2	376.4	MS	Gn		N	"Sandy"
376.4	415.0	SS	Wh	M	N	S; altered volcanics
415.0	415.5	SS	Wh	M	N	Trashy zone
415.5	419.5	MS	Gn		S;FK	Sandy
419.5	422.0	SS	Wh	F	S;Sm	
422.0	428.6	MS//ST	Gn//Wh		N	S, R; Mot
428.6	452.1	MS//ST	R		N	S, Gn; Mot

γ-Ray Log 0 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Exhibit 3

Hole No. BV-35

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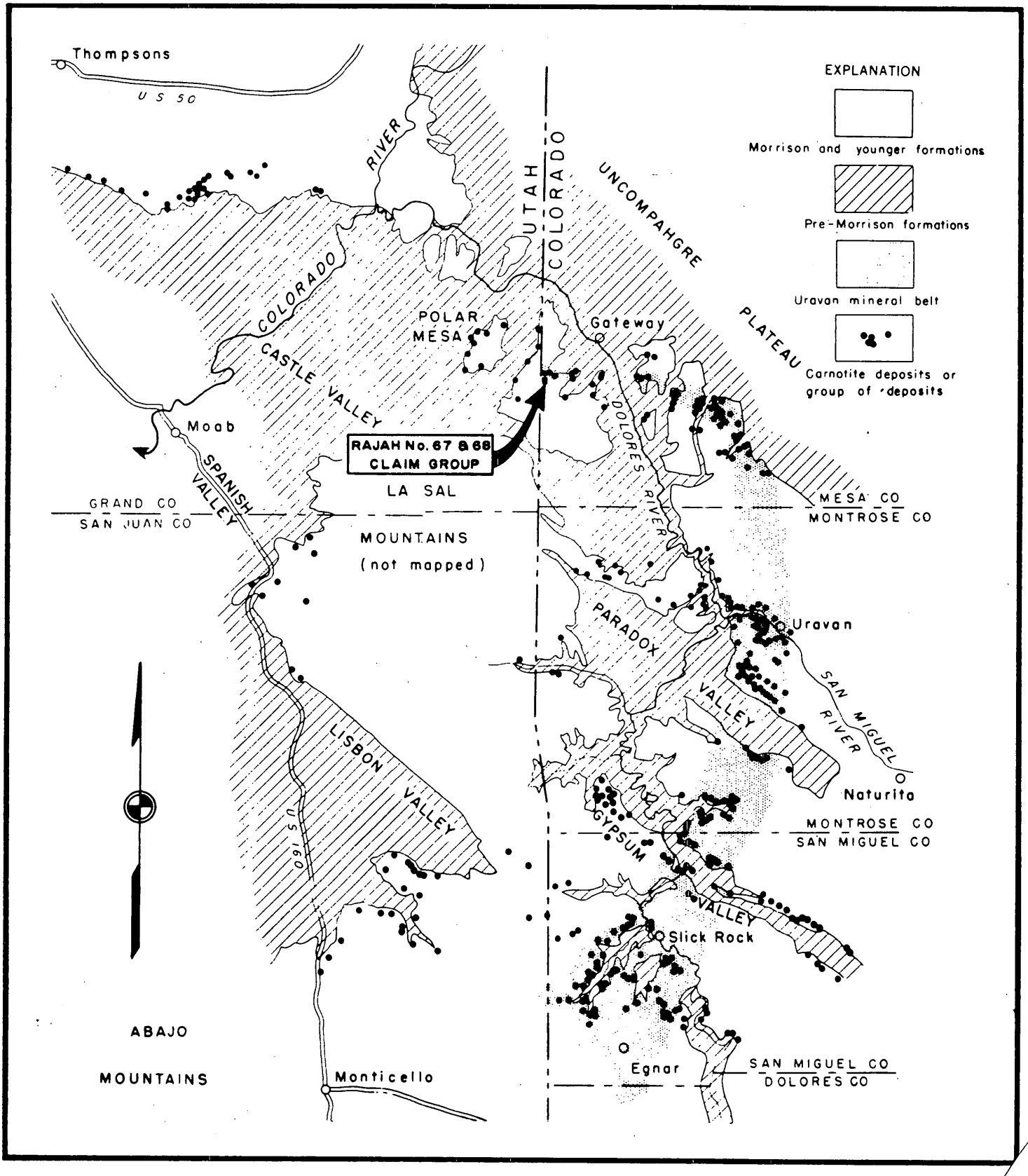
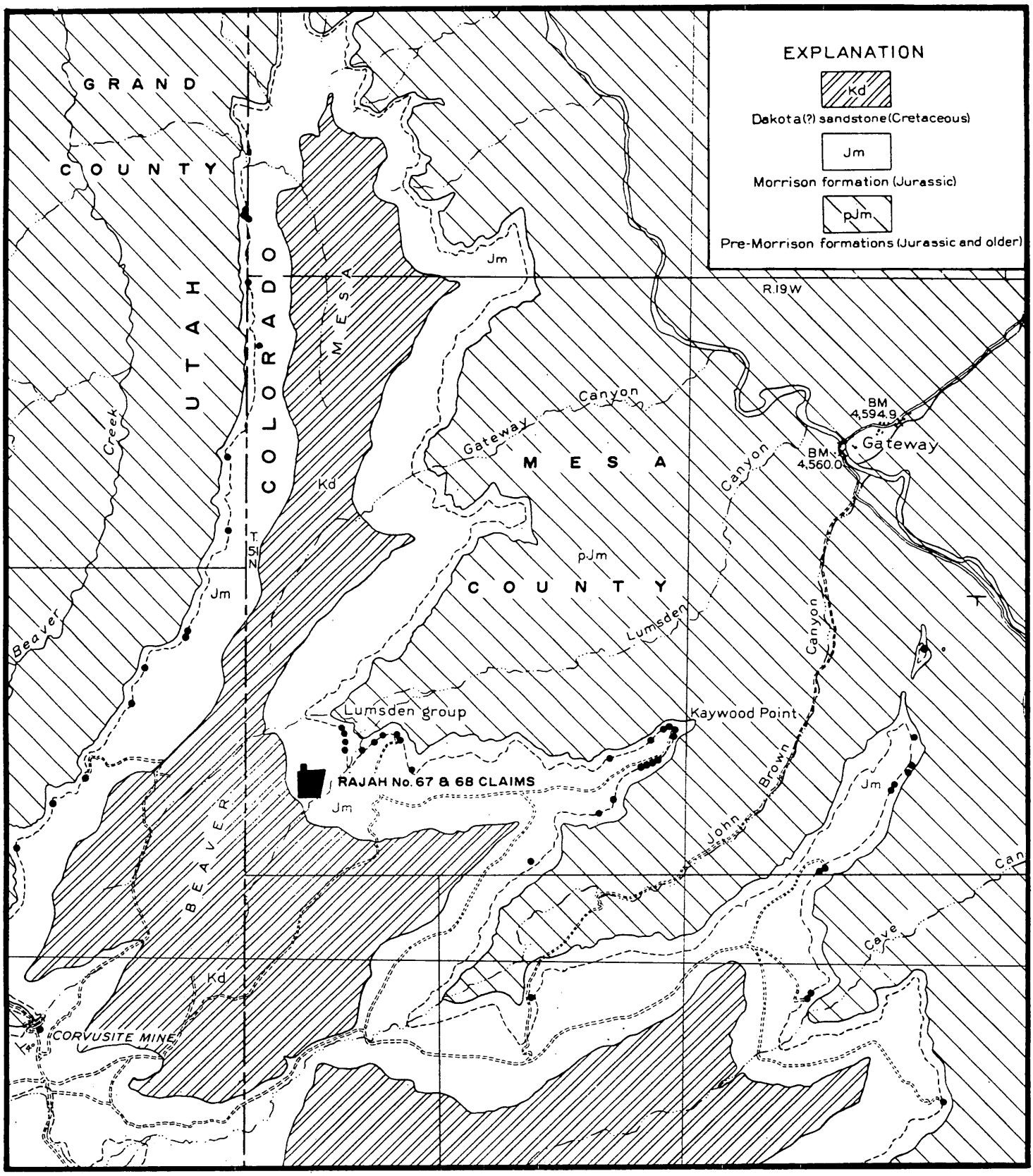


5 0 5 10 15 20

SCALE IN MILES

General Location Map

PLATE



USGS Geologic Map Beaver Mesa Area

PLATE No. 2

Project Summary Report

By: F. M. Murphy Date: May 17, 1956

1. Docket No. DMEA-3649 (Uranium)
   Contract No. Idm-E812

   Operator: Hamilton, Harris, McDavid, Phillips, Ladd, and Simpson Mining Company, a joint venture, with Julian E. Simpson designated to act as their agent.
   P. O. Box 127
   304 Main Street
   Grand Junction, Colorado

   Operator's Property Rights: Owners of five mining claims, the Rajah Nos. 61, 62, 63, 67, and 68, situated in secs. 35 and 36, T. 51 N., R. 20 W., N.M.P.M., Mesa County, Colorado

2. Contract: Dated June 8, 1955
   No amendments

Work Authorized:

Stage I (13 holes)

Bulldozing, 14 days @ $100/day	$1,400.00	
4,249 ft. non-core drilling @ $2/ft.	8,498.00	
1,370 ft. core drilling - $2.75 to $3.50/ft.	4,222.50	
Standby time - 10 hrs. @ $12/hr.	120.00	
Incidental allowance 5,619 ft. @ $0.60/ft.	3,371.40	
U_3O_8 & V_2O_5 analyses - 65 samples @ $6.00/sample	390.00	
TOTAL		$18,001.90

Stage II

Same work and costs as Stage I 18,001.90

Total Estimated Cost of Project (rounded) $36,004.00

Government Participation @ 75 percent $27,003.00

Work Completed: (26 holes)

Bulldozing - 13 hrs. @ $89.615/hr.	$1,165.00	
8,800 ft. non-core drilling @ $2/ft.	17,600.00	
1,979 ft. core drilling	6,221.00	
Standby time - 12.75 hrs. @ $12/hr.	153.00	
Incidental allowance 10,779 ft @ $0.60/ft.	6,467.40	
Analyses - 65 samples @ $6/sample	390.00	
TOTAL		$31,996.40

3. Audit Report of Review: Dated December 16, 1955

Total cost as billed by Contractor	$31,996.40
Exceptions: By DMEA Finance Officer	None
By Auditor	None
Total Accepted Cost	$31,996.40
Government Participation @ 75 percent	$23,997.31

4. Operator's Final Report: Dated December 8, 1955: (Excerpts)

Work under the contract started July 19, 1955, and was completed November 3, 1955. A total of 26 exploratory holes were drilled.

All of the 26 holes, with the exception of two, were classed as geologically favorable for the occurrence of uranium-vanadium ore deposits. The two holes excepted were classed as semi-favorable.

Seven (7) holes intersected commercial ore-grade material and 13 holes were mineralized but not of commercial grade or thickness.

The Salt Wash sandstone containing the ore body is of a gray-white color, medium fine grain and averages 49 feet in thickness in the 7 ore holes.

Ore Reserves:

Hole No.	Thickness - Feet	$\%U_3O_8$	$\%V_2O_5$	Tons
HR. 2	5.7	0.03	1.46	11,832.4
" 3	2.6	0.13	1.12	6,078.7
" 4	1.7	0.35	1.65	4,408.3
" 9	3.4	0.35	3.28	4,760.0
" 10	5.5	0.50	0.70	7,813.8
" 14	4.1	0.19	10.13	6,192.4
" 14	1.0	0.62	2.75	1,510.3
" 16	9.8	0.28	1.46	15,342.1
Total & Average	4.02 ft.	0.25%	2.45%	57,938 tons

Note: In letter May 4, 1956, Washington requested the Field Team to submit its Final Report. Due to the time required to process a certification of discovery, it has been prepared on the basis of the Operators' Final Report.

Fm Murphy/rzm 5-17-56
cc to: Mr. Murphy
Oper. Com.
Admin R. File
Code 700

5. Certification of discovery: Issued May 25, 1956.

6. Final Field Team report by Howard F. Albee, USGS, and Carl Belser, USBM, received July 13, 1956.

Excerpts from report:

> The discovery consists of two ore bodies at a depth of 400 feet. The ore-grade material, estimated at 51,645 tons, will be mined from one shaft.

7. The Operator has repaid the full amount of the Government's participation under this contract. However, three of the claims, Rajah Nos. 61, 62, and 63, are also included under Contract Idm-E987, Docket No. DMEA-4073; therefore, additional production from these claims are subject to royalty payments under that contract.

NOTE: The Operator is presently paying royalties under Contract Idm-E987 which has also been certified as a discovery.

8. Work under the contract was performed in a satisfactory manner.

Additional exploration, by the applicant, appears to be warranted, particularly in the areas between ore and strongly mineralized holes.

F. M. Murphy

F. M. Murphy

☒ Audited

☒ Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of May 15, 1956
Incl. Voucher for Oct. Nov., 1955

☒ Actual Cost

☐ Agreed Unit Costs

Name Hamilton et al, and Simpson Mining Company

Docket No. 3649

State Colorado

Commodity Uranium

Idm-E No. 812

OPERATION	AUTHORIZED Units	AUTHORIZED Cost $	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) feet — Non-Core	8498	21,491.20	8800	21,911.60	21,911.60
Drilling (Specify) feet — Core	2740	10,932.60	1979	8,529.80	8,529.80
Surface Excavation					
Underground Excavation					
Roads and Trails		2800.00		1,165.00	1,165.00
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Analyses		780.00		390.00	390.00
Totals		$36004.00		$31,996.40	$31,996.40
Contract Rounded					
Actual		36003.80			

Prepared by F. M. Murphy

71626

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
7/5	C.E.F.	800
		220

JUL - 8 1957

Mr. Donald T. Finch
DMEA Auditor
224 New Customhouse Building
Denver 2, Colorado

Re: Royalty Audit Report
Idm-E812, DMEA-3649
Hamilton, Harris, McDavid,
Phillips, Ledd and Simpson
Mining Company

Dear Mr. Finch:

Receipt is acknowledged of your First Royalty Audit Certificate and Report covering the above-cited project.

The report is acceptable and normal distribution may be effected.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Director
Contract Administration
and Audit Division

CEFisher/wb
July 5, 1957

Copy to: Docket
Admr. Reading File
Mr. Chambers

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/27	Alley	800
8-29	Chambers	800
8/30	Mayberry	700
8/30	Ellis	700
9/2	Selbridge	120
9/3	Johnson	110
"	Mittendorf	100
9/3	C	220
		225

Mr. Julian E. Simpson, Agent
Hamilton et al. and Simpson Mining Co. SEP 3 1957
Post Office Box 127
304 Main Street
Grand Junction, Colorado

Re: Docket No. DMEA-3649 (Uranium)
Hamilton, Harris, McDavid, Phillips,
Ladd, and Simpson Mining Company,
a joint venture
Rajah Group of Claims
Mesa County, Colorado
Contract No. Idm-E812

Dear Mr. Simpson:

Under the above-cited contract for exploration for uranium the Government agreed to share 75 percent of the cost, not in excess of $36,004.00, as approved and accepted by this Administration. The accepted cost was determined to be $31,996.40 and the Government's share at 75 percent participation to be $23,997.31.

As the exploration work resulted in a discovery the Government was to receive a royalty percentage for a period of 10 years, or until the amount advanced by the Government was liquidated, whichever occurred first. As a result of the production from the land under this contract the Government's advance was repaid considerably before the expiration of the ten year repayment period provided for in the contract.

Under this contract, therefore, the Government retains no claim or lien against the land or any future production therefrom. However, three of the claims under this contract, Rajah Nos. 61, 62, and 63, also are included under Contract No. Idm-E987, Docket No. DMEA-4073, which has been certified, and the Government cannot release its lien thereon until that contract has been paid in full or the royalty period provided in that contract has expired.

I wish to congratulate you for a successful exploration and to thank you for the payment of your account under the contract. It has been a pleasure to participate in this very fine undertaking.

AMAlley/ama
August 29, 1957

Sincerely yours,

C. O. Mittendorf (fw)
Administrator

Copy to: Docket
Admr. Read. File
Administrator
Mr. Johnson
Mr. Ellis
Mr. Chambers
Mr. Crawford, USBM
Mr. Kiilsgaard, USGS
Kathleen P. Ladd, c/o Graham B. Ladd, 918 Milam Bldg., San Antonio, Texas
FT, Reg. III (2)

8623

22d New Customhouse
Denver 2, Colorado

August 22, 1957

Memorandum

To: J. W. Townsend, Alternate Acting Executive Officer, DMEA Field Team, Region III

From: Donald T. Finch, DMEA Auditor

Subject: Docket No. DMEA-3649 (Uranium), Contract Idm-M512 Hamilton, Harris, McDavid, Phillips, Ladd, and Simpson Mining Company

Pursuant to your request in memorandum dated August 21, 1957, I have reviewed the subject royalty files and the Finance Office records.

According to a Report of Review dated December 16, 1955, the total accepted costs of Contract Idm-M512 amounted to $31,996.40 with the Government's contribution on a 75 percent basis being $23,997.31.

On August 21, 1957, the records of the Finance Office at Certificate of Deposit No. 58-22 reflected total royalty payments received and credited to Contract Idm-M512 as $23,997.31, which repays the Government's contribution in full.

Donald T. Finch
Donald T. Finch, Auditor

DTF:bh
cc-J. L. Chambers
Subject
Chron.

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DATE
CODE
8/26 File

224 New Customhouse
Denver 2, Colorado

August 21, 1957

Memorandum

To: D. T. Finch

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

Subject: Docket DMEA 3649 (Uranium), Contract Ium-E812, Simpson Mining Company, et al. (Roger Group of Claims), Mesa County, Colorado

Please provide us with final clearance on the royalty account included under the subject contract. Cursory inspection indicates the total amount of Government participation has been fully repaid.

Original signed by
J. W. TOWNSEND

J. W. Townsend

MHM/.j

cc: Royalty File E812
Corres. File E812
Sec. Opr. Comm. (2)
Marshall
Chron.

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DATE		CODE
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		M&F

OFFICIAL FILE COPY DMEA RECEIVED JUN 7 1957		
DATE	INITIALS	CODE
6/10	C	220
6/10		800
		225

224 New Customhouse
Denver 2, Colorado

June 4, 1957

Memorandum

To: M. H. Salsbury

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

Subject: Docket DMEA-3649 (Uranium) Contract Idm-E812, Simpson Mining Company, et al. (Roger Group of claims) Mesa County, Colorado

Enclosed is a copy of our letter of even date to the Operator inquiring as to the convenience for an auditor from this office to inspect production records at Grand Junction June 12 and 13.

The auditor plans to arrive in Grand Junction the night of June 11 and to leave the afternoon of the 13th. Accordingly, we will appreciate your making reservations for room and bath in the La Court Hotel the evening of June 11. The auditor will need to reconcile A.E.C. production figures to those maintained by your office; therefore, please have a member of your staff available for consultation.

Unless notified to the contrary, we will assume that the suggested arrangements are satisfactory to you and the Operator.

Original signed by
E. N. HARSHMAN

E. N. Harshman

Enclosure
MHM:jy
cc: Royalty File E812
Sec. Op. Comm. (2)
Konselman (2)
Finch
Marshall
Chron.

SIMPSON MINING COMPANY
304 Main Street
P. O. Box 127
GRAND JUNCTION, COLORADO
November 27, 1956

RECEIVED DEC 3 1956 D.M.E.A.

RECEIVED DEC 3 1956 D.M.E.A.

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

Re: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company, et al (Rajah Group of Claims), Mesa County, Colorado

Dear Mr. Traver:

We have your letter of November 16, 1956 regarding AEC bonus on property.

The land subordinated to the Government by the terms of Contract Idm-E812 was embraced in a group of 29 claims which were certified as being eligible to receive bonus payments by the Atomic Energy Commission on November 2, 1955, number D.U.P. C6-C-622.

The first 10,000 pounds of U_3O_8 was produced from the J. W. L. Fraction No. 1, one of the 29 claims in the eligible unit, by November, 1955 and the bonus was paid on that production.

So it appears that the production from land subordinated to the Government under Contract Idm-E812 is not eligible for AEC production bonus, however, we plan to submit another bonus application to the AEC in the near future for Contract Idm-E812 land, in which we will request that a separate bonus certification be made for said land.

Very truly yours,

SIMPSON MINING COMPANY

J. E. Simpson

J. E. Simpson

JES:jb
cc: 7 - W. M. Traver
1 - W. D. McDavid
1 - Arthur Hamilton
1 - File

Sec Opr Comm (2)

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

224 New Customhouse
Denver 2, Colorado

November 16, 1956

Mr. J. E. Simpson
Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Re: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Co., et al (Rajah Group of Claims), Mesa County, Colorado

Dear Mr. Simpson:

To bring our royalty files current, you are requested to submit an original and six (6) copies of a statement regarding your status of eligibility to receive AEC bonus payments for production of the first 10,000 lbs of U_3O_8 from land subordinated to the Government by the terms of Contract Idm-E812.

Yours very truly,

Original signed by
W. M. TRAVER

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

MHM/vj

cc: Royalty File E812
Corres. File E812
Sec. Or. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

RECEIVED
NOV 19 1956

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

Dear Mr. Traver:

Reference is made to your memorandum of October 31, 1956, in regard to the need for "Memoranda of Explanation" to be attached to the three following projects: Docket No. DMEA-3565, Contract No. Ida-E778, The Golden Cycle Corporation; Docket No. DMEA-3649, Contract No. Ida-E812, Hamilton, et al and Simpson Mining Company; and Docket No. DMEA-3688, Contract No. Ida-E827, Gaddis Mining Company.

Mr. Chambers has been in correspondence with Mr. Bunding relative to these contracts, and he is of the opinion that Contract No. Ida-E812, Hamilton, et al and Simpson Mining Company, will not need the memorandum but will hold the determination of this fact until he gets further word from Mr. Bunding. You are correct in stating that "Memoranda of Explanation" will be needed for the other two contracts and they will be furnished in the next few days.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

Frank D. Lamb

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

JLChambers/wb
November 6, 1956

Copy to: Docket (3) DMEA-3565
DMEA-3649
DMEA-3688
Admr. Reading File
Operating Committee
Mr. Crawford, USBM
Mr. Kiilsgaard, USGS
Mr. Ellis
Mr. Chambers

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

OCT 31 1956

3649

Mr. Thomas H. Brading
DMEA Auditor
224 New Customhouse Building
Denver 2, Colorado

Dear Mr. Brading:

Reference is made to your letter of October 15, 1956, one part of which dealt with Contract No. Idm-2812, Hamilton, et al and Simpson Mining Company.

Apparently you think a "Memorandum of Explanation" should be attached to the contract because the Operator apparently did approximately 300 feet more of one type of drilling than the contract called for, but did less of the other type of drilling. Our regular Contract Form MF-200 permits this interchange of items under Category (1), but it does not permit the total amount appearing in the category to be exceeded. It is my understanding that taking this into consideration no explanatory memorandum will be required. Will you please confirm this understanding.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
October 31, 1956

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.S.S.

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

RECEIVED
SEP 17 1956

224 New Customhouse
Denver 2, Colorado

September 12, 1956

Mr. J. E. Simpson
Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Re: Royalty payments, Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company, et al (Rajah Group of Claims), Mesa County, Colorado

Dear Mr. Simpson:

We have received a royalty payment check for $115.03 from Union Carbide Nuclear Company, Rifle, Colorado, for production covered by Liquidation No. R-1595.

Contrary to your written instructions of August 22, 1956, this office was supplied with but two (2) copies of the settlement sheet. At the time of initial shipment, it is normally advisable to reiterate to your purchaser that this office requires four (4) copies of each settlement sheet.

Further, we note that Liquidation No. R-1595 is indicated to have been made with one settlement covering a series of shipments. Unless the settlement sheet is accompanied by a load detail sheet, neither the Operator nor the Government can be assured of accuracy.

Hence, you are requested to instruct your purchaser to furnish us with four (4) copies of a load detail sheet on Liquidation No. R-1595 and for subsequent settlements made with one settlement sheet covering a series of individual shipments. The load detail sheet must show the dry weights and assay of each shipment. This in turn assures you and the Government of accurate computations, and serves as a permanent record which may be subjected to inspection in the future.

Yours very truly,

W. M. TRAVER

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

MHM/vj

cc: Royalty File E812
Corres. File E812
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron

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

Rubin
Hoffland
Murphy
Ellis
Talbot
Selfridge
Johnson

SEP - 7 1956

Mr. W. N. Traver, Executive Officer
DMEA Field Team, Region III
Bureau of Mines
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3649 (Uranium)
Hamilton, Harris, McDavid,
Phillips, Ladd, and Simpson
Mining Company
Rajah group of claims
Mesa County, Colorado
Contract Idm-E812

Dear Mr. Traver:

Your memorandum dated August 27, 1956, transmitted copies of an Agreement dated July 18, 1956, and a Mining Contract dated November 7, 1955, both between the subject Operator and Beaver Mesa Uranium, Inc., which were obtained by you pursuant to your letters dated July 10, July 16, and August 15, 1956, to the Operator.

Your letter of July 10 quite properly inquired of the Operator as to the interest in the Rajah No. 67 claim held by Beaver Mesa Uranium, Inc. The copy of the Mining Contract between the Operator and Beaver Mesa Uranium, Inc., submitted to you with the Operator's letter dated July 13, 1956, appears to be an independent contract for mining purposes, and, therefore, it does not violate the provisions of Article 2(d) of the contract concerning the transfer of land. Accordingly, the agreement of July 18, 1956, executed by the Operator and Beaver Mesa Uranium, Inc., pursuant to the urging of the Government, and designating Union Carbide Nuclear Company, the "purchaser of all the ore," as agent of the Operator and the mining contractor for payment of the Government's royalty, merely formalizes the type of arrangement contemplated by Article 8(h) of the contract form concerning notice to purchasers of the royalty due the Government.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Approved:

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

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

Copy to: DMEA Docket
Adm. Reading File
Operating Committee
Mr. ~~Cecran~~ Lands, B.M.
Mr. Kiilsgaard, G.S.
E. W. Ellis
J. L. Chambers
R. P. Dwyer
H.C. Rubin

HCRubin/emd
8/31/56

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

224 New Customhouse
Denver 2, Colorado

August 27, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company, et al (Rajah Group of Claims), Mesa County, Colorado

Enclosed for legal review and your acceptance is one copy of an Agreement with Mining Contract attached, between the Operator of the subject contract and Beaver Mesa Uranium, Inc., submitted in compliance with our letters of July 10, 1956, July 16 and August 15, 1956, copies of which have been previously sent to your office.

We requested a copy of this instrument to ascertain the effect, if any, such lease would have on the interests held by the Government. Accordingly, we requested conformance to the provisions of Article 2(d) of the contract.

You will note the agreement reputedly makes provision to protect the Government's interest, although the Mining Contract appears not to "....transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon....".

Please advise if this instrument is acceptable or if there are other requirements that should be fulfilled by Simpson Mining Company.

W. M. Traver

W. M. Traver

Enclosure

RECEIVED
AUG 30 1956

A G R E E M E N T

THIS AGREEMENT Made and entered into as of July 18, 1956, between JULIAN E. SIMPSON, partner in Simpson Mining Company and Agent and Attorney in Fact for Arthur Hamilton, Otis Phillips, Jr., John W. Harris, W. D. McDavid, Rex Phillips and Graham B. Ladd, in all affairs pertaining to D M E A Contract No. -3649, hereinafter called Simpson, and BEAVER MESA URANIUM, INC., a Nevada corporation duly authorized to transact business in the State of Colorado, hereinafter called BEAVER Mesa;

WITNESSETH;

WHEREAS on or about June 8, 1955, Simpson and Defense Minerals Exploration Administration entered into the Contract above numbered, reference to which being hereby made for its particular terms and conditions. In the performance of said Contract an ore body has been disclosed upon the Rajah No. 67 mining claim.

On November 7, 1955, Simpson and Beaver Mesa entered into that certain Contract whereby Beaver Mesa agreed to mine the ores discovered upon said claim, a true copy being hereto attached and made a part hereof, which agreement has been extended to the 7th day of November, 1956, under the same terms as therein provided, that is to say, that all ores mined by Beaver Mesa shall be deposited in Simpson's ore bins for disposition by it; and

WHEREAS Simpson intends to and has so notified Union Carbide Nuclear Company, a division of Union Carbide & Carbon Corporation, a New York corporation with offices in Grand Junction, Colorado, that it will consign all ores so mined under said Contract to the Mill of said company at Rifle, Colorado. ACCORDINGLY:

IT IS HEREBY AGREED BETWEEN THE PARTIES HERETO that said purchaser is hereby authorized and directed to pay to D M E A a royalty as specified in Paragraph (e) ARTICLE 8, to-wit:

> "(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 ($8.00) dollars 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.)"

and to furnish said governmental agency with copy of all settlement sheets.

WITNESS Their Names.

s/ Julian E. Simpson
Agent & Attorney in Fact

BEAVER MESA URANIUM, INC.

s/By Alan M. Simpson
Thereunto duly authorized

CONTRACT

THIS AGREEMENT, Made and entered into as of the 7th day of November, 1955, by and between ALAN M. SIMPSON and JULIAN E. SIMPSON, mining partners doing business as SIMPSON MINING COMPANY of Grand Junction, Colorado; ARTHUR HAMILTON, and OTIS PHILLIPS, JR., both of Dallas, Texas, JOHN W. HARRIS, W. D. McDAVID, REX PHILLIPS and GRAHAM B. LAND, all of San Antonio, Texas, parties of the first part, hereinafter called "Company" and BEAVER MESA URANIUM, INC., a Nevada Corporation whose address is Post Office Box 567, Grand Junction, Colorado, party of the second part, hereinafter called the "Contractor", WITNESSETH:

WHEREAS, Company is the owner of certain mineral ground known as Rajah No. 67 and Rajah No. 68 lode mining claims in the Gateway Mining District, County of Mesa, and State of Colorado, the location certificates thereof being duly recorded in office of said county in Book 576 at pages 345 and 346, (excluding therefrom all conflicts with the Pack Rat No. 1, Pack Rat No. 2, Johnny Mae No. 3, La Sal No. 8 lode mining claims, and Lot 1, Section 35, T5IN, R20W, NMPM, patented land), hereinafter referred to as the Mine, and

WHEREAS, the Contractor is an independent contractor engaged in contract mining, and has a staff of employees skilled in mining, and

WHEREAS, the Company is desirous of having certain work hereinafter described, performed at the Mine by an independent contractor, and

WHEREAS, the Contractor is willing to undertake the said work on the terms and conditions hereinafter specified;

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter contained, the parties hereto have agreed and do hereby agree as follows:

FIRST, the Contractor covenants and agrees as follows:

(a) To mine all low grade ore in conjunction with the high grade ore and deliver the same to the Company's ore bins at the Mine at the rate of not less than 500 tons per month, and to perform development work and preliminary work requested by the Company, all of which is hereby referred to as the "work". The work shall be performed in accordance with good mining practice and with due diligence and in compliance with health and safety regulations and all other requirements of Federal, State and local governments, including, not by way of limitation, all necessary timbering and other work to place and maintain the mine in safe operating condition, maintenance of first aid equipment at the mine which meets the approval of the State Mining Inspector, immediately furnishing the Company a copy of any lost time accident report sent to the State Compensation Insurance Fund of Colorado, keeping the ore clean of injurious material and removal of barren material to locations at which it will not affect future mining operations. The term "development' herein used refers to primary excavations that are required to expose ore for the purpose of extracting that ore; namely, but not exclusively, incline, raise, drift shaft and cross cut excavations.

(b) To provide at Contractor's own expense all mining machinery, equipment, tools, and supplies necessary to the performance of the work and the other operations to be performed by the Contractor. The Company shall furnish pipe, rail, timber and those accessories that, when installed, become a permanent installation in the mine.

(c) To post notices at the mine so as to hold the Company free and clear of any liability arising from the Contractor's operations; and to indemnify and save harmless the Company against all claims and demands whatsoever arising out of the Contractor's operations hereunder, including, but not limited to, death and injuries to persons and damage to property.

(d) To supervise, direct and control such employees as the Contractor may require to properly perform this agreement, and to pay them on his own account.

(e) To reduce lumps of ore delivered to Company's ore bins in size so that they will not be in excess of twelve (12) inches at their greatest cross-section.

(f) To comply with all applicable statutes with respect to labor employed on the work, including, but not limited to, the Fair Labor Standards Act and the Walsh-Healy Act, and to protect and indemnify the Company against any payroll taxes or contributions imposed with respect to any employees of the Contractor by any applicable law dealing with old age benefits, unemployment compensation, accident compensation, health insurance, and related subjects.

(g) To insure at the cost and expense of the Contractor to each and every workman employed in, about or upon the work, the compensation provided for in and by each and every statute applicable thereto with respect to Workmen's Compensation, Occupational Disease, and/or Employer's Liability; and to pay and discharge, or otherwise dispose of any and all claims, suits, actions and demands of any nature whatsoever, for injury to persons, including death resulting therefrom, and loss of, or damage to, property caused by or in connection with the performance of work under this contract; and to procure and maintain, at the cost and expense of the Contractor until the termination of this contract, public liability insurance in a reputable and financially responsible insurance company, properly safeguarding the Contractor against liability for injuries to persons, including injuries resulting in death, and loss of and damage to property, in amounts acceptable to the Company, and to furnish to the Company written certificates from insurance carriers or from appropriate governmental authorities establishing that said insurance of employees and said public liability insurance have been procured and are being properly maintained, and that the premiums therefor are paid, and specifying the names of the insurers and the respective policy numbers and expiration dates. All such insurance policies shall provide (unless by statute applicable thereto it is otherwise provided) that in the event of cancellation thereof, written notice of such cancellation shall be given to the Company at least five (5) days prior to the effective date of such cancellation.

(h) To permit the Company full and free access to the mine for the purpose of such inspection as is necessary to determine compliance with this agreement and with the usual health and safety regulations.

(i) To pay all costs and expenses of the work, including, but not limited to, labor, powder, blasting caps, fuse and other materials as may be required for the work, and to save harmless the Company of and from liability for any and all such costs and expenses.

(j) To indemnify and save harmless the Company from laborers', mechanics', materialmen's liens and all other liens and charges upon the work

and/or upon the premises upon which the work is located arising out of the operations to be performed and materials furnished by the Contractor under this agreement, provided that the Company shall have paid to the Contractor all amounts due and payable to the Contractor under this agreement.

SECOND, the Company agrees:

(a) To give the Contractor and his employees engaged in the work access to the premises.

(b) To furnish the Contractor with the pipe, rails, timber and accessories thereto necessary for the performance of operations hereunder, which shall become a part of the mine and remain the property of the Company.

(c) That payments to the Contractor for the work completed during the 1st th the 15th days, inclusive, of each calendar month shall be made on the first day of the following month, and for work completed during the 15th to the 31st day of each calendar month on the 15th day of the following month according to the terms specified in the attached "Schedule A." Payment for the development work will be made once each month.

THIRD, both parties agree:

(a) All ore developed, encountered and mined under this contract shall be and remain the property of the Company. This contract does not contemplate any work by the Contractor upon the Company's ore now in dumps and the Contractor shall not perform any work with reference thereto.

(b) As a part of the work the Contractor shall save and deliver to the Company's ore bins all ore encountered in development work in excess of two (2) inches in thickness, and, in addition to the payments provided in attached "Schedule A" for development work, shall receive payment as provided in attached "ScheduleA" under the headings "VANADIUM" and "URANIUM." When thickness of ore in a development excavation exceeds eighteen (18) inches, the Contractor's operations shall no longer be considered as development work and the Contractor shall be paid only for mining operations.

(c) Either party may terminate this contract on thirty (30) days' advance written notice to the other party, given personally or sent by registered mail; if notice of termination is sent by mail, it shall be deemed to be served on the date of mailing. Unless terminated as herein provided this agreement shall continue for the period beginning November 7, 1955 and ending May 7, 1956.

(d) In the event that the Contractor shall fail to comply with the terms herein set forth, or any of them, the Company shall notify the Contractor of his default or failure, and, if the Contractor shall fail to correct said default or failure within five (5) days after service of such notice, the Company may then forthwith terminate this agreement without further notice.

(e) This agreement may not be assigned by the Contractor without the prior written consent of the Company; nor shall this agreement be assignable or transferrable by operation of law.

(f) The Contractor shall at all times during the term of this

agreement have and exercise full and complete direction and control of the work.

(g) That inasmuch as this agreement is solely a mining contract, it is understood that the Contractor does not have an economic interest in the mineral deposit or the mine and will not attempt to claim any of the depletion allowances. All of the depletion allowances will be claimed by the Company.

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

SIMPSON MINING COMPANY

BY: s/ Julian E. Simpson

s/ Arthur Hamilton

s/ Otis Phillips, Jr.

s/ John W. Harris

s/ W. D. McDavid

s/ Rex Phillips

s/ Graham B. Ladd

(SEAL)

BEAVER MESA URANIUM, INC.

BY: s/Robert E. Simpson
President, thereunto duly authorized

ATTEST:

BY: s/ D. Howe Moffat
Secretary

SCHEDULE A

Truck loads of ore as removed from the Company's ore bin may be sampled and assayed separately, or at the company's option, several truck loads may be combined for sampling and assaying, and settlement to be made on a dry basis in accordance with the grouping of loads as outlined under "URANIUM" below, or at the Company's option all of the ores hauled and sampled during any settlement period may be combined into a single group (under "URANIUM" below) and settlement made on a dry basis in accordance with that schedule. (see example at end of "Schedule A")

VANADIUM

$0.155 per pound of V_2O_5 contained. No payment with respect to ores assaying less than 1.25% V_2O_5 except ores containing 0.15% or more U_3O_8 (Groups A and B and, if U_3O_8 content 0.15% or more, Group C).

URANIUM

Group A - Ores assaying o.51% U_3O_8 or more:

Base payment of $1.25 per pound U_3O_8 contained in the ore, plus $0.75 premium per pound U_3O_8 contained for each pound of U_3O_8 in excess of four (4) pounds U_3O_8 per ton, and in addition thereto, $0.25 premium for each pound of U_3O_8 contained in excess of ten (10) pounds per ton.

Group B - Ores assaying from 0.20% U_3O_8 to 0.50% U_3O_8, inclusive:

Base payment of $1.25 per pound of U_3O_8 contained and, in addition thereto, $0.75 premium for each pound of U_3O_8 contained in excess of four (4) pounds of U_3O_8 per ton.

Group C - Ores assaying from 0.10% U_3O_8 to 0.19% U_3O_8 inclusive:

$0.20 per pound of U_3O_8 contained for 0.10% ore, plus $0.20 per pound for each 0.01% above 0.10% to 0.13%, inclusive, U_3O_8 contained. $1.25 per pound of U_3O_8 contained in ores assaying 0.14% to and including 0.19% U_3O_8.

Group D - Ores assaying 0.10% to 0.14%, inclusive, U_3O_8 and less than 1.25% V_2O_5:

Payment for U_3O_8 content as mentioned in Group C above, no payment for V_2O_5 content.

Group E - Ores assaying 1.25% V_2O_5, or more, but less than 0.10% U_3O_8: No payment for U_3O_8 content.

Group F - Ores assaying less than 0.10% U_3O_8 and 1.25% V_2O_5: No payment for either metallic oxide content.

DEVELOPMENT WORK PAYMENT - To be measured monthly and paid on or before the 15th day of the following month.

For raise excavation, including timber ..... $10.00 per lineal foot.

For 6' x 7' standard drift excavations including track, ties and pipe ..... $12.00 per lineal foot.

For 6' x 7' standard drift excavations not including track and ties ..... $10.00 per lineal foot.

For 4' x 6' cross cut excavations including track, ties and pipe ..... $10.00 per lineal foot.

For 4' x 6' cross cut excavations not including track and ties and pipe ..... $ 8.00 per lineal foot.

For incline excavations exceeding 12° below the horizontal including track, ties and pipe ..... $15.00 per lineal foot.

For incline and drift timber - two posts and cap. blocked and lagged top and sides ..... $ 6.50 per set.

For vertical excavations, size, two compartment 4' x 8' inside timber, including installation of manway landings, ladders, and all timber, complete and ready for service, material to be furnished by the Company ..... $30.00 per lineal foot.

EXAMPLE

U_3O_8 and V_2O_5 payment for a short dry ton of ore (2,000 lbs.) assaying 3.00% V_2O_5 - 0.60% U_3O_8 would be as follows:

V_2O_5 Payment

3.00% V_2O_5 = 60 lbs. V_2O_5 per dry ton base payment 60 lbs. at $0.155 ..... $ 9.30

U_3O_8 Payment

0.60% U_3O_8 = 12 lbs. U_3O_8 per dry ton base payment 12 lbs. at $1.25 ..... $15.00

First premium (12-4) 8 lbs. at $0.75 ..... $ 6.00

Second Premium (12-10) 2 lbs. at $0.25 ..... $ .50

Total Payment $30.80

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

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

August 15, 1956

Mr. J. E. Simpson
Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Re: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company, et al (Rajah Group of Claims), Mesa County, Colorado

Dear Mr. Simpson:

Your letter of May 14, 1956, stated there may be some production from the property described in the contract by June, 1956. Please advise us by return mail when we may expect settlement sheets and royalties on production.

Enclosed also, is a photocopy of our letter dated July 16, 1956, for which we have not received your reply. Please give this matter your immediate attention.

Yours very truly,

W. M. TRAVER

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

Enclosure

MHM/vj

cc: Royalty File E812
Corres. File E812
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

RECEIVED
AUG 17 1956

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

RECEIVED
JUL 18 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

July 16, 1956

Mr. J. E. Simpson
Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Re: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining et al, (Rajah Group of claims), Mesa County, Colorado

Dear Mr. Simpson:

We have received and return herein the copy of the Mining Contract between you and Beaver Mesa Uranium, Inc., which was submitted in your letter dated July 13, 1956.

Your attention is directed to our letter of July 10, 1956, which requested a signed copy of an instrument conforming to the requirements of Article 2(d) of the contract. The subsequently submitted copy of the enclosed Mining Contract makes no provision for the preservation of the Government's right to royalty on production and lien for the payment thereof.

Until this office is provided with a mining contract whereby the Government's interest is protected as required by Article 2(d), we have no alternative but to look to you for payment of royalties due on production from the Rajah No. 67 claim.

Yours very truly,

W. M. TRAVER

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

Enclosure

MHM/vj

cc: Royalty File E812
Sec. Opr. Comm. (2)
J. F.Shaw (2)
Marshall
Chron.

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

July 16, 1956

RECEIVED
JUL 16 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

Subject: Final Report, DMEA Docket 3649 (Uranium), Simpson Mining Company et al. (Rajah Group of Claims), Mesa County, Colorado

I have reviewed the final report, DMEA Docket 3640, Simpson Mining Company et al. (Rajah Group of Claims) Mesa County, Colorado, dated June 27 and received in this office July 12, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The exploration with Federal assistance consisted of 10,779 feet of drilling at a total cost of $31,996.40 and resulted in the discovery of an estimated 59,329 tons of indicated ore containing 0.25 percent U_3O_8 and 1.67 percent V_2O_5. In view of the results, the examining team recommended that the property be certified as a discovery, and a certification was issued effective May 25, 1956.

We concur in the actions taken by the Field Team.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

James Paone
James Paone

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

224 New Customhouse
Denver 2, Colorado

July 10, 1956

Mr. J. E. Simpson
Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Re: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining et al, (Rajah Group of claims), Mesa County, Colorado

Dear Mr. Simpson:

This agency has been informed that your company has leased the Rajah No. 67 claim to Beaver Mesa Uranium, Inc. As this claim is included in Contract Idm-E812, you are referred to Article 2(d) which states in part:

> "...the Operator shall neither transfer, convey, nor surrender the land or any right, title or interest therein, nor permit or 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."

You are accordingly requested to submit a signed copy of the lease conforming to the above Government requirements, or photostat of same to this office.

Yours very truly,

W. M. TRAVER

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

MHM/vj

cc: Royalty File E812
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

RECEIVED
JUL 13 1956

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

224 New Customhouse
Denver 2, Colorado

July 2, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company et al. (Rajah Group of Claims), Mesa County, Colorado - FINAL REPORT

Enclosed are the original and three copies of the final engineering and geologic report pertaining to work completed under the subject contract.

The original and one copy of the Operator's final report were forwarded to you by memorandum of February 13, 1956.

Final payment to the Operator was processed by this office January 6, 1956 in conformance with the Report of Review of contract expenditures by the Contract Administration and Audit Division, dated December 16, 1955 which was released to this office January 5, 1956.

The exploration work consisted of 8,800 feet of non-core drilling and 1,979 feet of core drilling, at a total accepted cost of $31,996.40, toward which the Government contributed to the extent of 75%, or an amount of $23,997.31.

The exploration work resulted in a discovery or development of uranium ore, on which a certification was issued effective May 25, 1956.

W. M. Traver
W. M. Traver

E. N. Harshman
E. N. Harshman

Enclosures

RECEIVED
JUL 9 - 1956

Reviewed by
DMEA OPERATING COMMITTEE
7-13-56
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

June 28, 1956

DMEA
Date Rec'd.
JUN 29 1956
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John Shaw
E. N. Harshman

Subject: DMEA Docket 3649 (Uranium), Contract Idm-E 812, Simpson Mining Company, et al., (Rajah group of claims), Mesa County, Colorado

Enclosed are the original and nine copies of a joint final report by Carl Belser, Bureau of Mines, and Howard F. Albee, Geological Survey, in which the results of exploration under contract Idm-E 812 are described.

Exploration of the Rajah claims by 10,779 feet of drilling at a total cost of $31,996.40 resulted in the discovery of an estimated 59,329 tons of indicated ore containing 0.25 percent U_3O_8 and 1.67 percent V_2O_5.

A certification of discovery was issued in May 25, 1956.

John Shaw
Superintendent of the Denver
Experiment Station

E. N. Harshman
Member, Field Team

Enclosures (10)

RECEIVED
JUL 9 - 1956

Reviewed by
DMEA OPERATING COMMITTEE
7-13-56
(date)

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

MINES
Colorado

DMEA 3649

Rajah claims

Simpson Mining Company, et al.

Mesa County, Colorado

Contract Idm-E 812

Uranium

Final Engineering and Geological Report

by

Howard F. Albee, Geologist
Geological Survey

Carl Belser, Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
7-13-56
(Date)

June 27, 1956

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DMEA 3649

RAJAH GROUP
SIMPSON MINING COMPANY, ET AL.
MESA COUNTY, COLORADO

INTRODUCTION AND SUMMARY

Arthur Hamilton, John W. Harris, W. D. McDavid, Rex Phillips, Otis Phillips, Jr., Graham B. and Kathleen P. Ladd, and Simpson Mining Company of Grand Junction, Colorado, applied in January 1955 to the Defense Minerals Exploration Administration for assistance to explore for uranium ore on their Rajah Nos. 67 and 68 unpatented mining claims on Beaver Mesa, Gateway mining district, Mesa County, Colorado. They proposed to explore the claims with a two-stage core and non-core drilling program consisting of 26 holes totaling 10,694 feet at an over-all cost of $40,744.14.

A field examination of the property was made on March 30, 1955, by a Region III examining team consisting of C. M. Harrer, U. S. Bureau of Mines, and T. E. Mullens, Lee J. Eicher, and Noel W. Bivens, U. S. Geological Survey, in company with J. E. Simpson, of Simpson Mining Company, representative of the applicants.

The exposed rocks in the area are the Jurassic Morrison formation and the overlying Cretaceous Burro Canyon and Dakota formations. All significant uranium-bearing deposits occur in the upper sandstone rim of the Salt Wash member of the Jurassic Morrison formation.

The applicant was asked to subordinate three claims, the Rajah Nos. 61, 62, and 63 which adjoin the Rajah Nos. 67 and 68 to the west, even though the drilling program was designed only for the two latter claims. A modified drilling program was proposed by the examining team and agreed upon by the representative of the applicant.

A two-stage drilling contract, E-812, was signed on June 8, 1955, provided for a maximum of 11,238 feet (26 holes) of non-core and core drilling at a total cost of $36,004.00.

Drilling on the contract started on July 19, 1955, and was completed on November 3, 1955. A total of 10,779 feet was drilled at a total cost of $31,996.40 - Government participation 75 percent, or $23,997.30

The discovery of a minable ore body containing an estimated 51,645 tons was made as a result of DMEA drilling and it is, therefore, recommended that a certificate of discovery be issued. The discovery consists of two ore bodies, but because of being at a depth of over 400 feet they will be mined from a single shaft. When a drift is driven from one ore body to the other the possibility is good that minable ore will be encountered and thus further increase the reserves.

Additional exploration is warranted, and should be done by the applicant, particularly in the areas between ore and strongly

mineralized holes. It is not recommended, however, that the Government participate in further exploration on these claims.

The operators have extended a drift on the Pack Rat No. 1 claim (fig. 3), which they have under lease, and plan to drive a raise to the surface when the drift reaches the Rajah claims. This will allow access to the ore body, in the event that access by way of the Pack Rat mine is lost. Such development is warranted in view of the size of the ore deposit discovered by DMEA drilling.

LOCATION AND ACCESSIBILITY

The property is in the Gateway mining district on Beaver Mesa in secs. 35 and 36, T. 51 N., R. 20 W., N. M. P. M., Mesa County, Colorado (fig. 2). The claims are easily accessible from Gateway, Colorado by way of 13 miles of improved gravel and dirt road up John Brown Canyon to Beaver Mesa, thence northerly across the mesa to a point overlooking the head of Lumsden Canyon. The property is accessible most of the year. During spring thaws access may be difficult, and for short periods in the summer the road in John Brown Canyon may be blocked due to heavy rains, otherwise the road is used for ore haulage the year around.

The claims lie at about 7,200 feet elevation and the annual precipitation is adequate to maintain a heavy growth of juniper and pinon and a scattered growth of ponderosa pine.

The top of the mesa presents a rolling surface that rises to the southwest and merges with the La Sal Mountains. To the

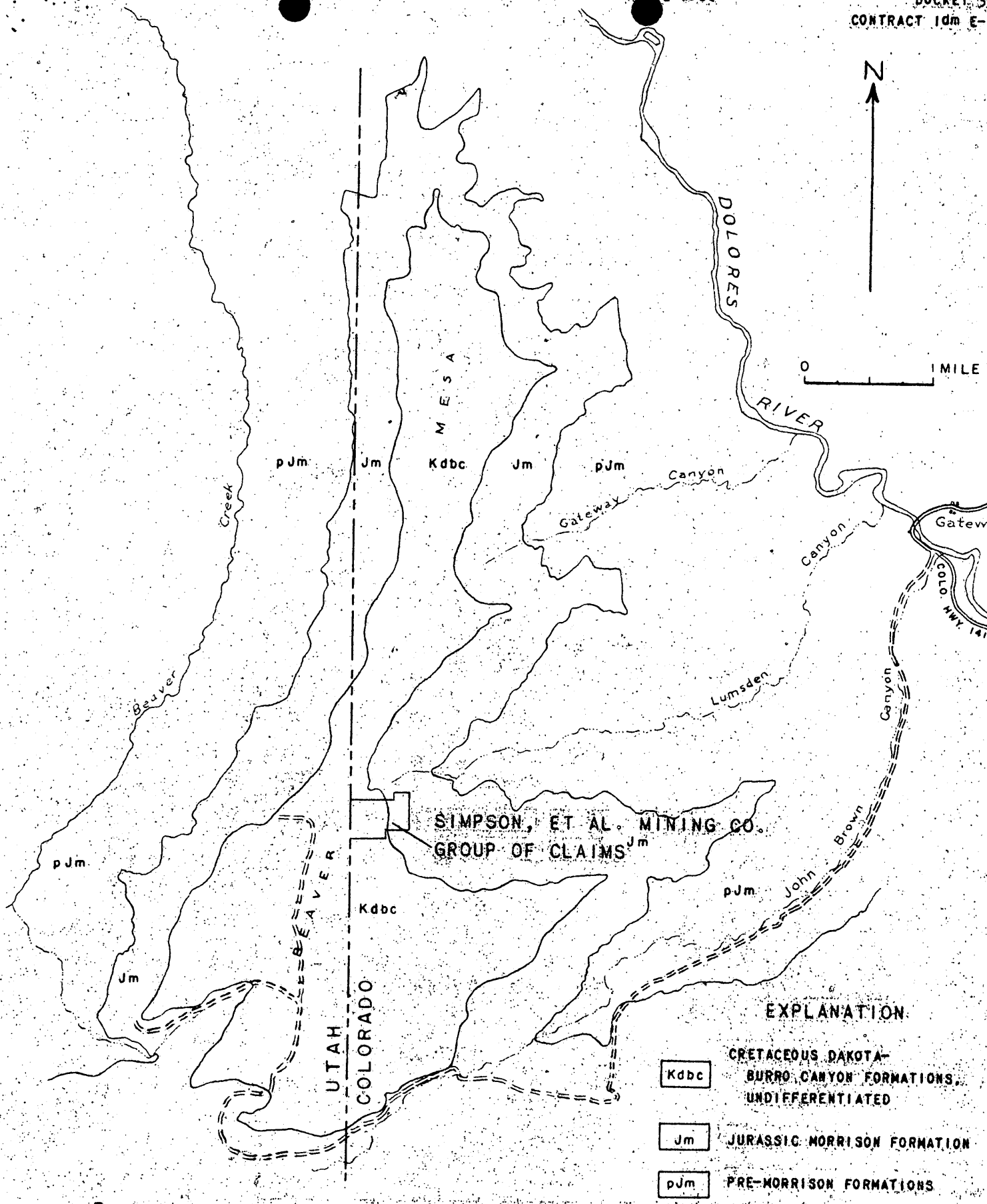


FIGURE 2. GEOLOGIC MAP SHOWING LOCATION OF THE RAJAH 61-63 AND 67-68 GROUPS OF CLAIMS, BEAVER MESA, SIMPSON, ET AL. MINING COMPANY, MESA COUNTY, COLORADO.

northeast the mesa ends abruptly and the topography drops off in a series of vertical cliffs, steep slopes, and benches into the Dolores River canyon. The northwest side of the mesa is cut off by the canyon of Beaver Creek and the southeast side is bounded by John Brown canyon.

A 12-mile dirt access road connects the property with Colorado State Highway 141 at Gateway, from whence Grand Junction, Colorado, is 61 miles northeast (fig. 1). Railroad and ore-buying facilities are available at Grand Junction.

OWNERSHIP AND EXTENT

The claims comprising the property are recorded in the office of the County Clerk and Recorder of Mesa County as follows:

Claim	Book	Page	Discovery Date	Date Recorded
Rajah 67	576	345	11/8/52	12/30/52
Rajah 68	576	346	"	12/18/52
Rajah 61	576	343	"	12/17/52
Rajah 62	576	495	"	"
Rajah 63	576	496	"	"

The rights of the various partners are recorded with the claims as follows:

Partners	Percent of ownership
Simpson Mining Company	25
W. D. McDavid	30
Arthur Hamilton	9
Otis Phillips, Jr.	9
John W. Harris	9
Rex Phillips	9
Kathleen P. and Graham E. Ladd	9

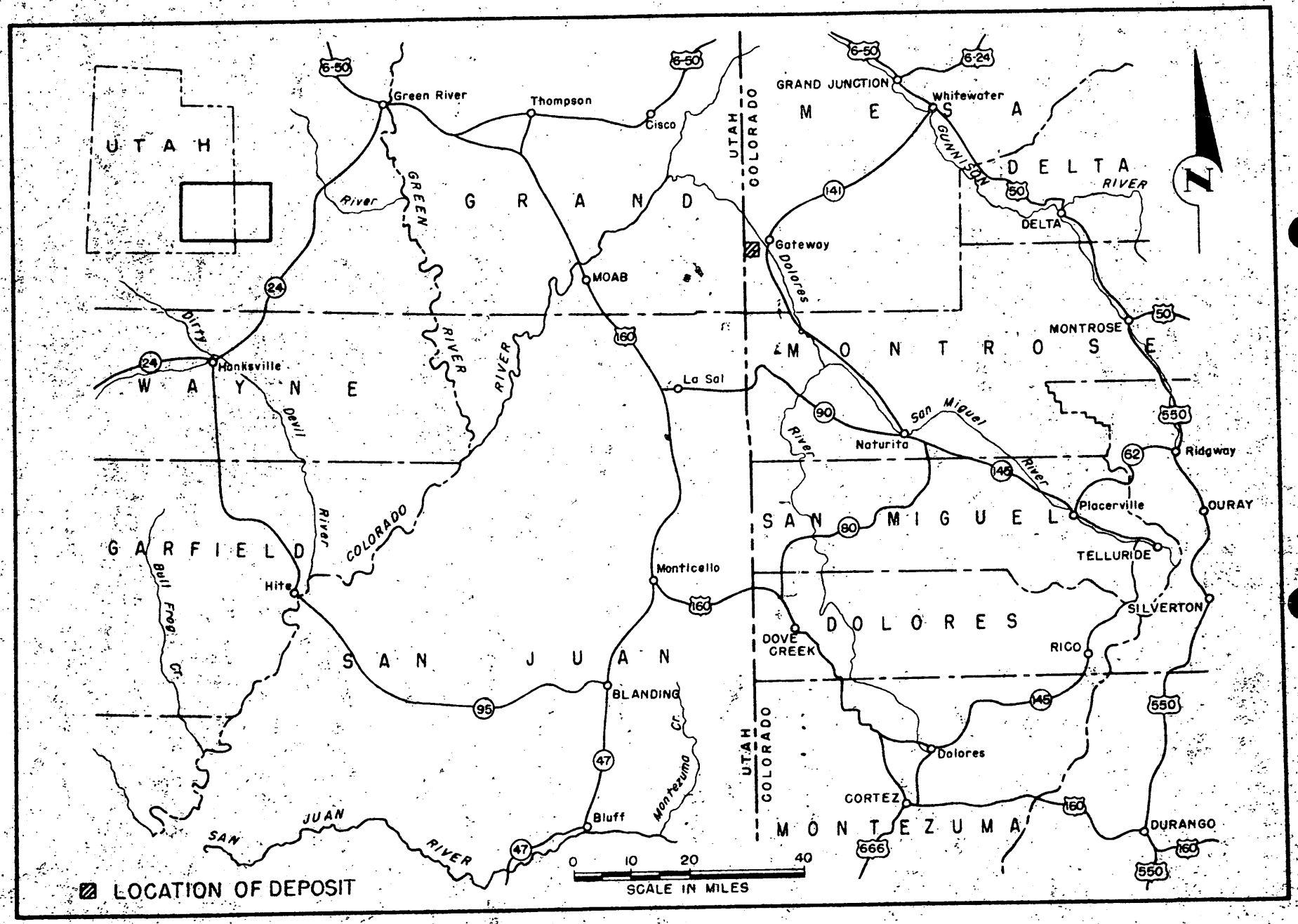


FIGURE 1 - LOCATION MAP, RAJAH CLAIMS, SIMPSON MINING COMPANY, ET AL, MESA COUNTY, COLO. DMEA 3649

There are no known liens or encumbrances against the property.

HISTORY AND PRODUCTION

Mining operations on Beaver Mesa were carried on before World War I, but work prior to the introduction of the uranium-buying schedules in 1948 was for the production of vanadium.

The Rajah group was located in 1952 and no production had been made from the claims through June 1955. The Lumsden No. 1 mine, which has been a good producing mine, is about 800 feet northwest of the Rajah group. Total production for the area through September 1954 was about 35,000 tons averaging 0.38 percent U_3O_8 and 1.5 percent V_2O_5.

GEOLOGY

The Beaver Mesa area lies on the southwest limb of the Dolores River syncline. The syncline trends northwest and plunges southeast at a low angle. The Mesozoic beds underlying the mesa dip about 2° to the northeast.

Rocks exposed in the area range from the Permian Cutler formation to the Cretaceous Burro Canyon and Dakota formations, and comprise an exposed geologic section of over 3,000 feet in thickness.

The rocks in the immediate vicinity of Beaver Mesa are comprised of the Jurassic Morrison formation, and the overlying Cretaceous Burro Canyon and Dakota formations. The Morrison formation is made up of two members in this area; the lower or Salt

Wash sandstone member and the upper or Brushy Basin shale member. The Salt Wash member ranges from 280 to 340 feet and the Brushy Basin member ranges from 340 to 360 feet in thickness. The Burro Canyon formation caps most of the area; however, in small areas remnants of the Dakota sandstone are present. The aggregate thickness of the Burro Canyon and Dakota is as much as 210 feet.

The Salt Wash sandstone is composed dominantly of sandstone interbedded with shale and mudstone. The sandstone commonly occurs as strata traceable as ledges or rims along the outcrop, but within each stratum individual beds are lenticular and discontinuous. The lenses are separated in places by mudstone and contain mudstone seams and lenses. Most of the sandstone is fine-to medium fine-grained. The sandstone is commonly crossbedded and consists largely of subangular to subrounded quartz grains.

The Brushy Basin shale member of the Morrison formation consists predominantly of varicolored bentonite shale and mudstone, with intercalated beds and lenses of sandstone and conglomerate sandstone. The shale and mudstone range from white to pastel tints of red and green. The Brushy Basin forms smooth slopes covered with blocks and boulders weathered from the more resistant layers of the member and from the overlying formations.

The Burro Canyon formation and the Dakota sandstone are composed predominantly of sandstone and conglomeratic sandstone interbedded with thin lenses of gray and green shale. The Burro Canyon

and Dakota characteristically crop out as cliffs or a series of thick resistant ledges.

ORE DEPOSITS

All of the significant uranium-bearing deposits found in the Beaver Mesa area are in the uppermost sandstone rim of the Salt Wash member of the Morrison formation. This rim is commonly referred to as the "ore-bearing sandstone" and ranges from 15 to 80 feet in thickness. The "ore-bearing sandstone" is commonly lenticular and irregularly bedded. The sandstone lenses contain thin discontinuous mudstone lenses, thin zones of mudstone-pebble conglomerate, and abundant fragments and masses of carbonaceous material. Uranium-bearing deposits are commonly localized in or near "trash pockets" containing much carbonaceous material. In the vicinity of the deposits the mudstone in contact with the sandstone has a gray-green color.

The significant uranium-bearing deposits in the Beaver Mesa area are the unoxidized (or only partially oxidized) uranium-vanadium type, commonly called "black ores". The principal ore minerals in these deposits are the uranium-bearing minerals uraninite and coffinite and the vanadium-bearing minerals, montrosite, lumsdenite, and doloresite.

Until development work is undertaken, either underground drifting or close-spaced drilling, the shape and the structural

control of the ore body, found as a result of the drilling under contract Idm-E 812, can only be inferred from the habits of the known deposits in the Beaver Mesa area. The deposits are generally of the "blanket type" as opposed to the "roll type" and can be projected with reasonable confidence between drill holes. They are generally controlled by relatively impermeable mudstone barriers within the sandstone host rock. The mudstone and sandstone intertongue and the ore deposits occur most commonly where the sandstone is decreasing in thickness, as at the margins of channels, scours, or lenses.

ORE RESERVES

The drill holes on the property range from about 100 to 200 feet apart. The areas between ore holes could be drilled for a better determination of the reserves, but from the habit of ore deposits in the area ore holes can be projected and a reasonable determination of the reserves can be made.

The operators in calculating the reserves of ore of a minable thickness, divided the area into polygons with a drill hole near the center of each polygon (fig. 3). The area in square feet of a polygon was multiplied by the thickness of the ore-grade material having a minable thickness as determined from the drill hole. The result was then divided by 14.5 cubic feet to give the tons of ore underlying the area within each polygon. The following table shows the operators' ore reserve calculations.

Table I - Ore reserve calculations

Hole No.	Thickness Feet	% U_3O_8	% V_2O_5	% $CaCO_3$	(Sq. ft.) Area	Tons
HR 2	5.7	0.03	1.46	1.51	30,100	11,832.4
HR 3	2.6	0.13	1.12	7.97	33,900	6,078.7
HR 4	1.7	0.35	1.65	5.23	37,600	4,408.3
HR 9	3.4	0.35	3.28	2.79	20,300	4,760.0
HR10	5.5	0.50	0.70	6.43	20,600	7,813.8
HR14	4.1	0.19	10.13	9.89	21,900	6,192.4
HR14	1.0	0.62	2.75	7.34	21,900	1,510.3
HR16	9.8	0.28	1.46	0.89	22,700	15,342.1
					209,000	57,938.0

Assay ton product

Hole No.	Tons x % U_3O_8	Tons x % V_2O_5	Tons x % $CaCO_3$
HR 2	354.97	17,275.32	17,866.94
HR 3	790.22	6,808.05	48,447.40
HR 4	1,542.90	7,273.66	23,055.30
HR 9	1,666.00	15,612.80	13,280.40
HR10	3,906.90	5,469.65	50,242.67
HR14	1,176.56	62,729.11	61,242.93
HR14	936.41	4,153.44	11,085.90
HR16	4,295.78	22,399.42	13,654.44
Totals	14,669.74	141,721.45	238,876.08

Tons x assay = Assay ton product

Average grade = $\frac{\text{Assay ton product}}{\text{Tons}}$

Average grade 0.25 % U_3O_8 2.45 % V_2O_5 4.12 % $CaCO_3$

Average thickness 4.02 feet

Total tons 57,938

Some of the areas of influence used by the operator seemed too great, specifically for HR 2, HR 3, and HR 4. For this reason and because reserves of less than minable thickness were indicated by drilling, the reserves were recalculated, using different areas of influence for the holes, based upon the U. S. Geological Survey's method of calculation. The reserves are broken into two blocks of minable ore and one block of ore-grade material, less than 1-foot thick. The following table shows the calculations for the indicated reserves of minable and non-minable ore.

Table 2 - Indicated reserves of minable and non-minable ore.

North reserve block

Hole No.	Thickness Feet	% U_3O_8	% V_2O_5	Area	Tons
HR 2	5.7	0.03	1.46	21,625	8,804.0
HR 3	2.6	0.13	1.12	21,000	3,900.0
HR 4	1.7	0.35	1.65	16,775	2,040.0
HR14	4.1	0.19	1.77	23,500	6,882.1
HR14	1.0	0.62	2.75	23,500	1,678.6
HR16	9.8	0.28	1.46	22,100	15,470.0
		0.211	1.672		38,771.60

South reserve block

Hole no.	Thickness Feet	% U_3O_8	% V_2O_5	Area	Tons
HR 9	3.4	0.35	3.28	20,025	4,917.85
HR10	5.5	0.50	0.70	20,250	7,955.35
		0.443	1.686		12,873.20

Ore grade - non-minable thickness

Hole No.	Thickness Feet	% U_3O_8	% V_2O_5	Area	Tons
HR 6	1.0	0.23	0.10	21,675	1,548.28
HR 7	1.0	0.12	3.11	21,900	1,564.29
HR18	1.0	0.05	1.28	22,650	1,617.86
HR19	1.2	0.13	0.56	22,775	1,952.14
HR21	0.8	0.25	4.53	17,650	1,001.42
		0.146	1.655		7,683.99

	N. block	S. block	Non-minable
Average grade	0.21 % U_3O_8	0.44 % U_3O_8	0.15 % U_3O_8
	1.67 % V_2O_5	1.69 % V_2O_5	1.66 % V_2O_5
Tons	38,771.6	12,873.2	7,683.99
Total minable ore		51,644.8	
Total non-minable ore		7,684.0	
Total indicated reserves		59,328.8	
Average grade	0.25 % U_3O_8	1.67 % V_2O_5	

One rather large discrepancy may be noted in the percent of V_2O_5 used in the calculations of hole HR14. The operator used an

anomalously high figure of 10.13 percent V_2O_5. This figure is no doubt correct at the sample point but statistically it would be incorrect to expect the content of V_2O_5 to average 10.13 percent throughout the block containing 21,900 square feet. The average ratio of V_2O_5 to U_3O_8 in the Beaver Mesa area is about 7 to 1. The figure of 10.13 percent V_2O_5 was, therefore, adjusted to 1.77 percent V_2O_5 by using the arithmetical average of all the holes containing a minable thickness of ore.

The total reserves as calculated for this report compare favorably in amount to the operators reserve calculations. The minable reserves are calculated at 51,645 tons, or 6,293 tons less than the 57,938 tons that the operator calculated. The north reserve block contains 38,772 tons of indicated ore that averages 0.21 percent U_3O_8 and 1.67 percent V_2O_5. The south reserve block contains 12,873 tons of indicated ore that averages 0.44 percent U_3O_8 and 1.69 percent V_2O_5. The indicated reserves of ore grade but not minable thickness are 7,684 tons that average 0.146 percent U_3O_8 and 1.66 percent V_2O_5.

THE PROJECT

The purpose of the project was to explore the upper or ore-bearing sandstone unit of the Salt Wash member of the Jurassic Morrison formation in a region where sizable ore deposits had been

found. From the data available the ore horizon was considered favorable for occurrence of significant uranium-bearing deposits, and the project was recommended for approval.

Original program and modifications

The original program submitted to DMEA was a two-stage drilling project providing for 10,694 feet of drilling in 26 holes at an estimated cost of $40,744.14. This program was only slightly modified and a DMEA contract was signed on June 8, 1955. The contract called for a two-stage project consisting of a maximum of 11,238 feet of non-core and core drilling at an estimated cost of $36,004.00. Work began on July 19, 1955 and drilling was completed on November 3, 1955. A total of 10,779 feet of core and non-core drilling was completed without major delays or mishaps.

Description of the work completed

The drilling contract was awarded to Sprague and Henwood, Inc. Stage I drilling was completed on September 23, 1955. Stage II drilling was completed on November 3, 1955. Work progressed smoothly and core recovery was good. The footage drilled and cored in each hole is shown in appendix I. The total cost per foot of drilling was $2.97.

Summary of factual data

The contract called for a maximum of 10,694 feet of drilling in 26 holes under the following stipulated costs:

Stage I

Bulldozing 14 days at $100/day	$ 1,400.00	
Non-core drilling 4,249 feet $2/ft.	8,498.00	
Core drilling 150 feet at $2.75/ft.	412.50	
Core drilling 920 feet at $3/ft.	2,760.00	
Core drilling 300 feet at $3.50/ft.	1,050.00	
Stand-by 10 hours at $12/hr.	120.00	
Incidental allowance 5,619 feet at $0.60/ft.	3,371.40	
65 chemical analyses at $6 each	390.00	
Total allowable cost for stage I drilling		$18,001.90

Stage II

Bulldozing 14 days at $100/day	$ 1,400.00
Non-core drilling 4,249 feet at $2/ft.	8,498.00
Core drilling 150 feet at $2.75/ft.	412.50
Core drilling 920 feet at $3/ft.	2,760.00
Core drilling 300 feet at $3.50/ft.	1,050.00

Stand-by 10 hours at $12/hr.	120.00		
Incidental allowance 5,619 feet at $0.60/ft.	3,371.40		
65 chemical analyses at $6 each	390.00		
Total allowable cost for stage II drilling		$18,001.90	
Total allowable cost for project (rounded)			$36,004.00
Government participation 75 percent, or			$27,003.00

Actual costs

The actual drilling costs follow:

Non-core drilling 8,800 feet at $2/ft.	$17,600.00	
Core drilling 40 feet at $2.75/ft.	110.00	
Core drilling 1,351 feet at $3/ft.	4,053.00	
Core drilling 585 feet at $3.50/ft.	2,058.00	
Stand-by 12.75 hours at $12/hr.	153.00	
Incidental allowance 10,779 feet at $0.60/ft.	6,467.40	
Bulldozing 13 days at $100/day	1,165.00	
Chemical analyses 65 at $6 each	390.00	
Total actual cost of project		$31,996.40
Government participation 75 percent, or		$23,997.30

Equipment consisted of three Sprague and Henwood drills and a bulldozer. Century Geophysical Corporation probed and logged the holes for the operator and samples were assayed in the Minerals Engineering Assay Laboratory. The holes were also logged by the Geological Survey.

CONCLUSIONS

The exploration project resulted in the discovery of indicated ore amounting to 51,645 tons of which 38,772 tons averaged 0.21 percent U_3O_8 and 1.67 percent V_2O_5, and 12,873 tons averaged 0.44 percent U_3O_8 and 1.69 percent V_2O_5. The exploratory cost per ton of indicated ore was $0.62, which is favorable.

Additional exploration is warranted but participation is not necessary by the Government. It is recommended that a certificate of discovery be issued.

APPENDIX I

List of holes drilled under the contract

Hole	Footage Non-core	Footage Core	Footage Total
HR 1	370	79	449
HR 2	310	110	420
HR 3	310	86	396
HR 4	260	73	333
HR 5	370	71	441
HR 6	300	142	442
HR 7	335	70	405
HR 8	305	60	365
HR 9	335	90	425
HR10	320	80	400
HR11	315	60	375
HR12	365	80	445
HR13	315	65	380
Total stage I (13)	4,210	1,066	5,276
HR14	370	80	450
HR15	340	69	409
HR16	310	70	380
HR17	350	84	434
HR18	330	85	415
HR19	315	69	384
HR20	390	70	460
HR21	340	85	425
HR22	320	58	378
HR23	360	77	437
HR24	360	85	445
HR25	350	99	449
HR26	360	77	437
Total stage II (13)	4,495	1,008	5,503
Total (26)	8,705	2,074	10,779

700

FILE COP

Surname:

Murphy
Mason
Chapman
Lane
Caswell
Chappell
Martin
Johnson

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

MAY 28 1956

Miss Kathleen P. Ladd
c/o Graham B. Ladd
918 Milam Building
San Antonio, Texas

Re: Docket No. DMEA-3649 (Uranium)
Contract No. Idm-E812
Hamilton, Harris, McDavid,
Phillips, Ladd, and Simpson Mining
Company, a joint venture
Rajah Group of Claims
Mesa County, Colorado

Dear Miss Ladd:

For your information, a certification of discovery or development has been issued to the Operator as a result of the exploration program under the above-referenced contract.

The property as set forth in the contract is the same property referred to in the Owner's Consent to Lien, dated June 24, 1955, which was signed by you.

We are enclosing the following for your records:

1. A copy of a "Certification by the United States of America of a Discovery or Development Under an Exploration Project Contract."

2. A copy of the transmittal letter to Mr. Julian E. Simpson, designated to act as agent for Arthur Hamilton, John W. Harris, W. D. McDavid, Otis Phillips, Jr., Rex Phillips, Graham B. Ladd, and Simpson Mining Company, a partnership comprised of Julian E. and Alan M. Simpson.

Sincerely yours,

G. O. Mittendorf (for)

Administrator

F. M. Murphy/izm 5-17-56
cc to: Admr.'s Reading File
Operating Committee
Robert W. Geehan, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Docket
Rare & Misc. Metals Div.
Field Team, Reg. III (2)
Contract Adm. & Audit Div.
F. E. Johnson
Mr. Murphy

P.C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

RECEIVED
MAY 28 1956

Region III

Building 20
Denver Federal Center
Denver 2, Colorado
May 22, 1956

DMEA
Date Rec'd.
MAY 24 1956
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: M. H. Salsbury
Through: John F. Shaw
Supervising Mining Engineer
E. N. Harshman
Member Field Team

Subject: DMEA 3649 (Uranium) Contract Idm-E812, Simpson Mining Co. et al., Mesa County Colorado -- Recommendations on certification.

A recommendation for Certification of Discovery on the subject property was made by Howard F. Albee, Geological Survey in a memorandum to the Executive Officer, DMEA Field Team, Region III dated May 15, 1956. I believe this was intended as a joint memorandum by Geological Survey and Bureau of Mines personnel.

I concur in the recommendation for Certification of Discovery on Docket DMEA 3649, Contract Idm-E812.

M. H. Salsbury
Mining Engineer

cc 9
Idm-E812
Chron.

MHS/ch

3649

ACTION ON INTER
OR FINAL FIELD TEAM REPORT

Date 5-21

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. ~~Legal Division~~
6. Docket Control Mails and Files

Note comments in report regarding:

1. Certification
Ore reserves
2. Headline case
3. June 8
4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Certification prepared and forwarded to Legal Division, Contract Division, and Operating Committee, on May 17, 1956, for surnaming and approval.

Robert E. Adams

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

RECEIVED
MAY 21 1956

224 New Customhouse
Denver 2, Colorado

May 18, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3649 (Uranium), Contract Idm-E812, Hamilton et al. and Simpson Mining Company (Rajah Claim), Mesa County, Colorado

In reference to matters discussed in your letter of May 4, 1956, we are enclosing the original and three copies of a memorandum from Howard F. Albee, Geologist, Geological Survey, dated May 15, 1956, recommending that the project be certified as a discovery or development resulting from the DMEA exploration work.

As the engineering and geologic sections of the Field Team's final report may not be available in time for forwarding to you prior to June 8, 1956, therefore the separate memorandum relative to the issuance of a certification is forwarded for your use in issuing the certification prior to the deadline date of June 8, 1956.

We concur in the recommendations of the examining Geologist and recommend that the certification be issued.

W. M. Traver

W. M. Traver

Enclosures

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
MAY 16 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
MAY 21 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

P. O. Box 360
Grand Junction, Colorado

DMEA
Date Rec'd.
MAY 17 1956
BUREAU OF MINES
Denver, Colorado

May 15, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: J. William Hasler
E. N. Marshman
John F. Shaw

From: Howard F. Albee

Subject: DMEA docket 3649 (Uranium, contract Idm-E 812
Simpson et al Mining Company (Rajah claims), Mesa County, Colo.
Certification of discovery

Arthur Hamilton, John W. Harris, W. D. McDavid, Rex Phillips, Otis Phillips, Jr., Graham B. and Kathleen P. Ladd, and Simpson Mining Company of Grand Junction, Colorado, applied in January 1955 for Defense Minerals Exploration Administration assistance to explore for uranium on their Rajah Nos. 67 and 68 unpatented mining claims on Beaver Mesa, Gateway mining district, Mesa County, Colorado. A field examination of the property was made on March 30, 1955, and an exploration program was recommended.

A two-stage program consisting of 26 drill holes resulted in the discovery of uranium-vanadium ore with indicated reserves, as calculated by the operators, of 57,938 tons of ore with an average grade of 0.25% U_3O_8, 2.45% V_2O_5 and 4.12% $CaCO_3$. The reserves, as calculated by the U. S. Geological Survey, compare favorably with the operators reserve calculations.

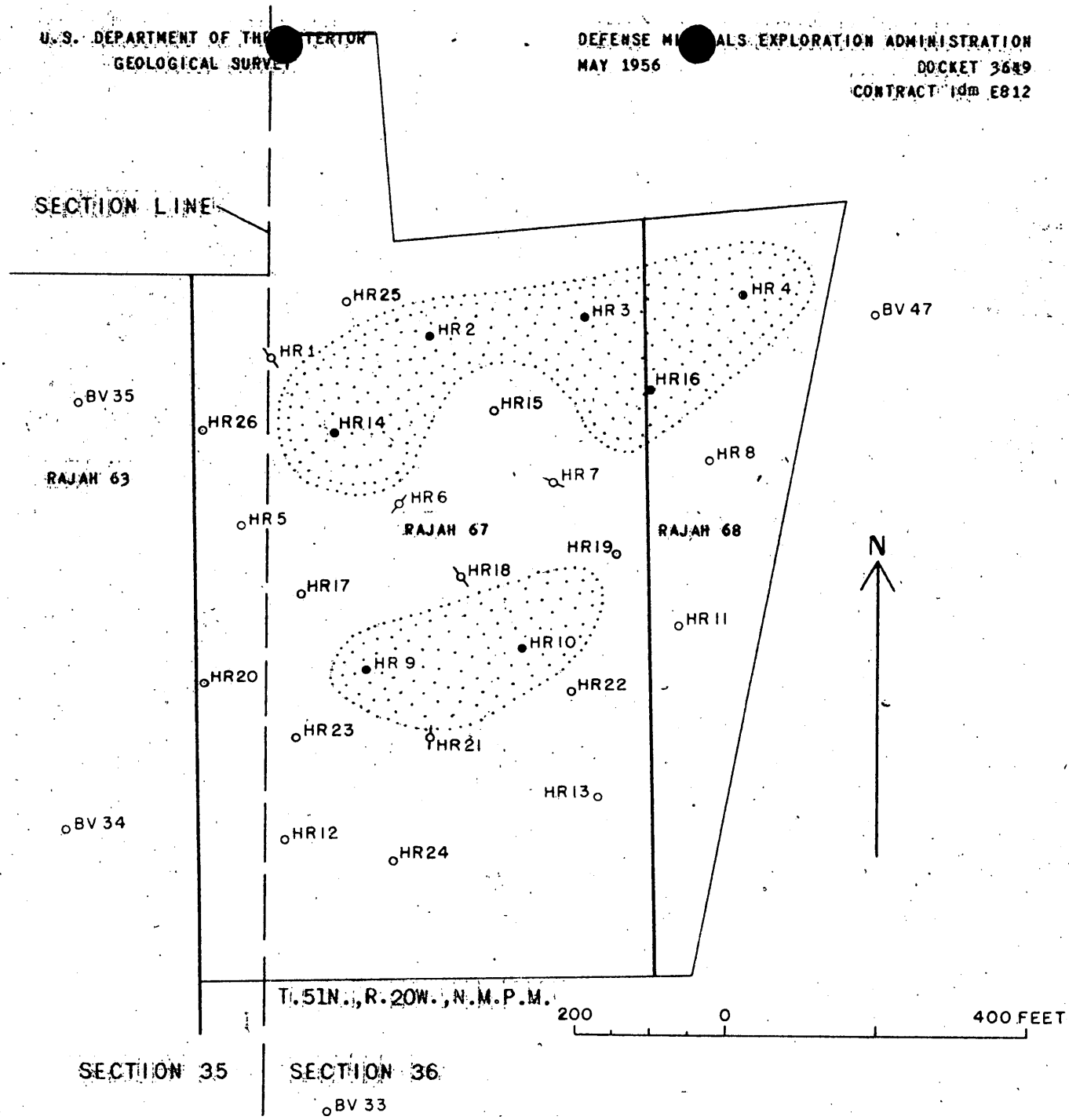
Since the discovery of minable reserves in the 50,000 ton class was made as a result of DMEA drilling (fig. 1), it is recommended that a certificate of discovery be issued.

Howard F. Albee
Howard F. Albee,
Geologist.

HFA/mlr

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
MAY 1956
DOCKET 3649
CONTRACT idm E812



EXPLANATION

DRILL HOLES, NUMBERS WITH PREFIX BV ARE U.S.G.S. HOLES, PREFIX HR ARE DMEA HOLES

○ BARREN

⊘ MINERALIZED

● ORE-BEARING

INDICATED ORE DEPOSIT

FIGURE 1. MAP SHOWING HOLES DRILLED AND INDICATED ORE RESERVES DISCOVERED DURING DMEA PROJECT, RAJAH GROUP SIMPSON MINING COMPANY, ET AL., GATEWAY MINING DISTRICT, MESA COUNTY, COLORADO.

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

RECEIVED
MAY 18 1956

224 New Customhouse
Denver 2, Colorado

May 15, 1956

Memorandum

To: Secretary, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Royalty payments, Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company, et al.,(Rajah claims) Mesa County, Colorado

Enclosed for your records are two copies of an answer to our May 10, 1956 letter to Simpson Mining Company concerning royalty payments.

W. M. Traver

Enclosures

Beep

SIMPSON MINING COMPANY
P. O. BOX 127
GRAND JUNCTION, COLORADO

RECEIVED
MAY 18 1956
DMEA
Rec'd
MAY 15 1956
BUREAU OF MINES
Denver, Colorado

May 14, 1956

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

Re: Royalty payments, Docket DMEA 3649 (Uranium) Contract Idm-E812 Simpson Mining Company, et al., (Rajah claims) Mesa County, Colorado

Dear Mr. Traver

In answer to your letter of May 10, 1956, please be advised that there have been no ore shipments from the above property to date.

Development drifts are now being driven on the property and there may be some production by June, 1956.

Very truly yours,

SIMPSON MINING COMPANY

J E Simpson

J. E. Simpson

Royalty file E 812

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

RECEIVED
MAY 14 1956

224 New Customhouse
Denver 2, Colorado

May 10, 1956

Mr. J. E. Simpson, President
Simpson Mining Company, et al.
Box 127, 304 Main Street
Grand Junction, Colorado

Re: Royalty payments, Docket DMEA 3649 (Uranium) Contract Idm-E812, Simpson Mining Company, et al., (Rajah claims) Mesa County, Colorado

Dear Mr. Simpson:

According to your letter of January 13, 1956 to the Union Carbide-Nuclear Company (copy furnished to this office) your company planned to ship ore from the Rajah claims in the near future.

As this agency has received neither settlement sheets nor royalty payments as of this date, please advise if any ore shipments have been made.

Yours very truly,

W. M. TRAVER

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

RDB:jy
cc: Royalty File E812
Sec. Op. Comm. (2)
J. F. Shaw (2)
Chron.

700

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

FILE COPY
Surname:

MAY 4 1956

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

Re: Docket No. DMEA-3649 (Uranium)
Contract No. Idm-5812
Hamilton, et al., and
Simpson Mining Company
Rajah Claims
Mesa County, Colorado

Dear Mr. Traver:

This refers to your memorandum of February 13, 1956, in which you advised that the Field Team's final report, relating to the subject contract, would be forwarded pending receipt of the engineering and geologic sections.

The Operator's final report forwarded with your memorandum is dated December 8, 1955; therefore, we have only to June 8, 1956 to certify the project under the terms of the contract.

Will you kindly forward the Field Team's report as soon as possible, so that we may issue the notice of certification which seems to be indicated by the Operator's final report.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

/s/ Robert W. Geehan
Member, Bureau of Mines

N. E. Nelson
Member, Geological Survey

FMMurphy/izm 5-4-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

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

RECEIVED
FEB 15 1956

224 New Customhouse
Denver 2, Colorado

February 13, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company et al., Grand County, Utah, and Mesa County, Colorado

In compliance with the "Special Notice" instructions contained in the "Minutes, Operating Committee," No. 622, dated January 27, 1956, we are enclosing the original and one copy of the Operator's Final Report.

The Field Team's Final Report will be forwarded as soon as the engineering and geologic sections are available.

W. M. Traver

W. M. Traver

Enclosures

SIMPSON MINING COMPANY
304 Main Street
P. O. Box 127
GRAND JUNCTION, COLORADO

December 8, 1955

RECEIVED
FEB 15 1956

RECEIVED
DEC 9 - 1955
Div. of Mineral Technology
BUREAU OF MINES
Denver Experiment Station
Denver, Colorado

Mr. John F. Shaw
U. S. Bureau of Mines
Room 127, Building 20
Denver Federal Center
Denver 2, Colorado

CERTIFIED MAIL

Re: Docket DMEA 3649
Contract Idm-E812
Rajah Claims

Dear Mr. Shaw:

Enclosed are five (5) copies of the Final Report for the DMEA 3649 contract for which all the authorized work was completed in November 1955.

The Final Report consists of the following items:

1. Summary of work performed and costs
2. Geological and engineering evaluation
3. Geologic and assay logs for all drill holes of the contract (HR 1 through HR 26)
4. Complete list of samples and assays for the entire contract (Table I)
5. Composite of samples and assays (Table II)
6. Estimate of ore reserves (Table III)
7. Map showing drill hole locations and areas of influence for each drill hole.

Very truly yours,

SIMPSON MINING COMPANY

BY Julian E. Simpson
Julian E. Simpson

JES:jb
Enclosures
cc: J. W. Hasler
W. D. McDavid
Arthur Hamilton

RECEIVED
DEC 9 - 1955
Div. of Mineral Technology
BUREAU OF MINES
Denver Experiment Station
Denver, Colorado

RECEIVED
FEB 15 1956

Docket No. DMEA - 3649
Contract No. Idm-E812
Rajah Claims

December 8, 1955

FINAL REPORT

Summary of Work Performed and Costs

Work under this contract was started July 19, 1955, and completed November 3, 1955. A total of 26 exploratory holes (HR1 thru HR 26) were drilled during the program. Each hole was drilled non-core down to the sandstone lens containing the expected ore horizon whereupon the remainder of each hole was cored AX in size and bottomed in the underlying red mudstone.

The total footage drilled under the contract for the 26 holes was 10,779 feet and consisted of 8800 feet of plug drilling and 1979 feet of core drilling. The cost of this drilling was $23,974.00.

Drill roads and sites were constructed for the 26 holes at a cost of $1,165.00.

A total of 65 samples were taken and assayed for per cent U_3O_8, per cent V_2O_5 and per cent $CaCO_3$ at a cost of $390.00

Incidental costs of the project including items such as supervision, engineering, equipment, materials and supplies were allowed for at $0.60 per foot for 10,779 feet making an incidental cost of $6,467.40.

The total cost of the project was $31,996.40.

Geological and Engineering Evaluation

All the 26 holes drilled except HR 11 and HR 13 were classified as geologically favorable for the occurrence of uranium-vanadium deposits. HR 11 and HR 13 were classified as semifavorable.

Enclosed with this report are geologic and assay logs for each of the 26 holes drilled (HR 1 thru HR 26).

Hole numbers HR 2, HR 3, HR 4, HR 9, HR 10, HR 14 and HR 16 intersected

RECEIVED
FEB 15 1956

ore of commercial grade and thickness and are classified as ore holes.

Hole numbers HR 1, HR 5, HR 6, HR 7, HR 8, HR 15, HR 17, HR 18, HR 19, HR 21, HR 23, HR 25 and HR 26 were mineralized but not of commercial grade and thickness.

Hole numbers HR 11, HR 12, HR 13, HR 20, HR 22 and HR 24 were barren.

The sandstone containing the ore body is of a gray white color, medium fine grain, and in the seven ore holes averages 49 feet thick. The thickness of the altered gray-green mudstone at the base of the ore sand in the 7 ore holes varies from a minimum of 6.4 feet in hole HR 9 to a maximum of 15.8 feet in HR 14.

The elevations of the bottom of the ore in each of the 7 ore holes are relatively uniform, varying between 6806.71 for HR 2 and 6814.62 for HR 3.

After the drilling was finished, a complete transit and chain survey was made of all of the 26 drill holes and the map included with this report is based on that survey. The map shows the position of each drill hole, assay results, collar elevations and elevations of the bottom of samples taken.

Assays

A complete list of samples and assays is shown in Table I.

For convenience and ore reserve calculations, contiguous samples of similar grades, and samples necessary to be included for stoping widths were weighted together as shown in Table II.

Estimate of Ore Reserves

In making ore reserve calculations, it was assumed that the samples from each drill hole were representative for the particular area of influence of each drill hole. Enclosed with this report is a map showing the area of drilling divided into areas of influence for each drill hole. Only hole numbers HR 2, HR 3, HR 4, HR 9, HR 10, HR 14 and HR 16 were considered to be ore holes and they alone enter into the ore reserve calculation. On the enclosed map the areas represented by these

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ore holes are bounded by red colored lines.

Table III shows the ore reserve calculations. Note that the thicknesses and grades used are composites of samples taken. HR 14 contained two veins of ore separated by a horse of waste and both veins are used in the ore reserve calculation. The tonnage factor used in these calculations is 14.5; that is, 14.5 cubic feet of ore in place equals one ton.

As shown in Table III the ore body is estimated to contain 57,938 tons of ore assaying 0.25% U_3O_8, 2.45% V_2O_5 and 4.12% $CaCO_3$. The average thickness of the ore body is 4.02 feet. The gross value of the ore in place, excluding development and haulage allowances, is $1,937,446.72.

HAMILTON, HARRIS, McDAVID, PHILLIPS,
LADD and SIMPSON MINING COMPANY

BY Julian E. Simpson
Julian E. Simpson

Docket No. DMEA - 3649
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COMPLETE LIST OF SAMPLES AND ASSAYS

TABLE I

SAMPLE NO.	HOLE NO.	SAMPLED FROM	SAMPLED TO	THICKNESS OF SAMPLE IN FEET	$\%U_3O_8$	$\%V_2O_5$	$\%CaCO_3$
1	HR 1	435.4	435.7	0.3	0.01	0.67	6.65
2	HR 6	416.0	417.0	1.0	0.04	0.12	3.13
3	HR 6	417.0	418.0	1.0	0.04	0.04	3.13
4	HR 6	418.0	419.0	1.0	0.23	0.10	2.92
5	HR 6	419.0	420.0	1.0	0.05	0.29	2.48
6	HR 2	377.0	378.0	1.0	0.00	0.04	2.19
7	HR 2	380.0	381.0	1.0	0.00	0.03	4.18
8	HR 2	381.0	381.7	0.7	0.31	2.13	2.95
9	HR 2	381.7	382.7	1.0	0.03	0.06	2.48
10	HR 2	387.9	390.0	2.1	0.02	1.45	1.64
11	HR 2	390.0	393.6	3.6	0.03	1.46	1.44
12	HR 3	357.8	358.4	0.6	0.08	1.12	0.39
13	HR 3	358.4	359.9	1.5	0.04	0.04	3.08
14	HR 3	359.9	360.6	0.7	0.39	0.18	11.09
15	HR 3	360.6	361.7	1.1	0.04	0.71	9.48
16	HR 3	361.7	362.5	0.8	0.03	2.51	3.16
17	HR 3	368.1	369.2	1.1	0.03	0.87	1.20
18	HR 7	380.7	381.7	1.0	0.03	0.06	6.63
19	HR 7	381.7	382.7	1.0	0.12	3.11	5.59
20	HR 7	382.7	383.7	1.0	0.04	0.08	4.60
21	HR 7	385.8	386.8	1.0	0.00	0.13	4.19
22	HR 8	336.3	338.3	2.0	0.00	0.05	4.14
23	HR 8	338.3	340.2	1.9	0.02	0.11	3.43
24	HR 8	340.2	341.5	1.3	0.00	0.08	4.16
25	HR 5	408.3	408.9	0.6	Trace	0.15	0.99
26	HR 5	415.9	416.3	0.4	Trace	0.32	1.53
27	HR 5	424.1	424.4	0.3	0.01	0.00	13.59
28	HR 4	304.0	305.0	1.0	0.54	1.37	7.01
29	HR 4	305.0	305.7	0.7	0.09	2.06	2.69
30	HR 9	405.0	406.3	1.3	0.04	0.13	2.45
31	HR 9	406.3	406.9	0.6	0.52	1.15	3.34
32	HR 9	406.9	407.5	0.6	0.16	4.87	0.77

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COMPLETE LIST OF SAMPLES AND ASSAYS

TABLE I

SAMPLE NO.	HOLE NO.	SAMPLED FROM	SAMPLED TO	THICKNESS OF SAMPLE IN FEET	%U_3O_8	%V_2O_5	%$CaCO_3$
33	HR 9	407.5	408.9	1.4	0.09	2.02	3.23
34	HR 9	408.9	409.7	0.8	0.82	5.88	3.12
35	HR 10	377.0	377.7	0.7	0.21	0.13	6.93
36	HR 10	377.7	379.1	1.4	1.36	1.58	4.93
37	HR 10	379.1	380.0	0.9	0.13	0.26	2.36
38	HR 10	380.0	381.1	1.1	0.34	0.53	8.06
39	HR 10	381.1	382.5	1.4	0.15	0.51	9.00
40	HR 14	411.2	412.2	1.0	0.12	8.62	4.88
41	HR 14	412.2	412.8	0.6	0.37	4.43	13.70
42	HR 14	412.8	413.7	0.9	0.35	3.63	15.89
43	HR 14	413.7	415.3	1.6	0.08	16.88	8.22
44	HR 14	419.5	420.5	1.0	0.62	2.75	7.34
45	HR 15	389.4	390.9	1.5	0.00	0.47	1.86
46	HR 16	345.6	346.8	1.2	0.02	1.61	1.86
47	HR 16	346.8	348.0	1.2	0.02	2.48	1.62
48	HR 16	350.0	351.6	1.6	1.57	3.94	Trace
49	HR 16	351.6	352.3	0.7	0.08	2.92	Trace
50	HR 16	352.3	354.4	2.1	0.02	0.36	0.22
51	HR 16	354.4	355.4	1.0	0.08	0.29	2.30
52	HR 26	406.3	407.0	0.7	0.02	0.38	0.93
53	HR 26	422.3	422.7	0.4	0.00	0.30	9.48
54	HR 23	422.3	423.2	0.9	0.01	0.37	8.66
55	HR 23	423.2	424.0	0.8	0.00	0.30	11.51
56	HR 25	421.0	421.4	0.4	0.06	4.97	1.32
57	HR 25	424.3	424.9	0.6	0.03	0.59	23.13
58	HR 21	404.5	405.3	0.8	0.25	4.53	3.37
59	HR 21	405.3	406.3	1.0	0.01	0.09	5.61
60	HR 21	406.3	407.3	1.0	Trace	Trace	5.77
61	HR 19	351.6	352.3	0.7	0.14	0.60	8.00
62	HR 19	355.8	356.3	0.5	0.12	0.51	1.37
63	HR 19	362.1	364.1	2.0	Trace	Trace	1.75
64	HR 18	387.8	388.8	1.0	0.05	1.28	3.56
65	HR 17	418.4	419.0	0.6	0.05	0.26	3.07

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COMPOSITE SAMPLES AND ASSAYS

TABLE II

SAMPLE NO.	HOLE NO.	SAMPLED FROM	SAMPLED TO	THICKNESS OF SAMPLE IN FEET	$\%U_3O_8$	$\%V_2O_5$	$\%CaCO_3$
2	HR 6	416.0	417.0	1.0	0.04	0.12	3.13
3	HR 6	417.0	418.0	1.0	0.04	0.04	3.13
Composite	HR 6	416.0	418.0	2.0	0.04	0.08	3.13
10	HR 2	387.9	390.0	2.1	0.02	1.45	1.64
11	HR 2	390.0	393.6	3.6	0.03	1.46	1.44
Composite	HR 2	387.9	393.6	5.7	0.03	1.46	1.51
14	HR 3	359.9	360.6	0.7	0.39	0.18	11.09
15	HR 3	360.6	361.7	1.1	0.04	0.71	9.48
16	HR 3	361.7	362.5	0.8	0.03	2.51	3.16
Composite	HR 3	359.9	362.5	2.6	0.13	1.12	7.97
28	HR 4	304.0	305.0	1.0	0.54	1.37	7.01
29	HR 4	305.0	305.7	0.7	0.09	2.06	2.69
Composite	HR 4	304.0	305.7	1.7	0.35	1.65	5.23
31	HR 9	406.3	406.9	0.6	0.52	1.15	3.34
32	HR 9	406.9	407.5	0.6	0.16	4.87	0.77
33	HR 9	407.5	408.9	1.4	0.09	2.02	3.23
34	HR 9	408.9	409.7	0.8	0.82	5.88	3.12
Composite	HR 9	406.3	409.7	3.4	0.35	3.28	2.79

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COMPOSITE SAMPLES AND ASSAYS

TABLE II

SAMPLE NO.	HOLE NO.	SAMPLED FROM	SAMPLED TO	THICKNESS OF SAMPLE IN FEET	$\%U_3O_8$	$\%V_2O_5$	$\%CaCO_3$
35	HR 10	377.0	377.7	0.7	0.21	0.13	6.93
36	HR 10	377.7	379.1	1.4	1.36	1.58	4.93
37	HR 10	379.1	380.0	0.9	0.13	0.26	2.36
38	HR 10	380.0	381.1	1.1	0.34	0.53	8.06
39	HR 10	381.1	382.5	1.4	0.15	0.51	9.00
Composite	HR 10	377.0	382.5	5.5	0.50	0.70	6.43
40	HR 14	411.2	412.2	1.0	0.12	8.62	4.88
41	HR 14	412.2	412.8	0.6	0.37	4.43	13.70
42	HR 14	412.8	413.7	0.9	0.35	3.63	15.89
43	HR 14	413.7	415.3	1.6	0.08	16.88	8.22
Composite	HR 14	411.2	415.3	4.1	0.19	10.13	9.89
46	HR 16	345.6	346.8	1.2	0.02	1.61	1.86
47	HR 16	346.8	348.0	1.2	0.02	2.48	1.62
	HR 16	348.0	350.0	2.0	0.00	0.00	
48	HR 16	350.0	351.6	1.6	1.57	3.94	Trace
49	HR 16	351.6	352.3	0.7	0.08	2.92	Trace
50	HR 16	352.3	354.4	2.1	0.02	0.36	0.22
51	HR 16	354.4	355.4	1.0	0.08	0.29	2.30
Composite	HR 16	345.6	355.4	9.8	0.28	1.46	0.89
54	HR 23	422.3	423.2	0.9	0.01	0.37	8.66
55	HR 23	423.2	424.0	0.8	0.00	0.30	11.51
Composite	HR 23	422.3	424.0	1.7	0.01	0.34	10.00

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Contract No. Idm-E812
Rajah Claims

ORE RESERVE CALCULATIONS

TABLE III

HOLE NO.	THICKNESS FEET	%U_3O_8	%V_2O_5	%$CaCO_3$	AREA OF INFLUENCE	TONS
HR 2	5.7	0.03	1.46	1.51	30 100	11 832.4
HR 3	2.6	0.13	1.12	7.97	33 900	6 078.7
HR 4	1.7	0.35	1.65	5.23	37 600	4 408.3
HR 9	3.4	0.35	3.28	2.79	20 300	4 760.0
HR 10	5.5	0.50	0.70	6.43	20 600	7 813.8
HR 14	4.1	0.19	10.13	9.89	21 900	6 192.4
HR 14	1.0	0.62	2.75	7.34	21 900	1 510.3
HR 16	9.8	0.28	1.46	0.89	22 700	15 342.1
			TOTALS		209 000	57 938.0

ASSAY-TON PRODUCT

HOLE NO.	%U_3O_8	%V_2O_5	%$CaCO_3$
HR 2	354.97	17 275.32	17 866.94
HR 3	790.22	6 808.05	48 447.40
HR 4	1 542.90	7 273.66	23 055.30
HR 9	1 666.00	15 612.80	13 280.40
HR 10	3 906.90	5 469.65	50 242.67
HR 14	1 176.56	62 729.11	61 242.93
HR 14	936.41	4 153.44	11 085.90
HR 16	4 295.78	22 399.42	13 654.44
TOTALS	14 669.74	141 721.45	238 876.08

AVERAGE GRADE 0.25% U_3O_8 2.45% V_2O_5 4.12% $CaCO_3$
AVERAGE THICKNESS 4.02 Feet
TOTAL TONS 57 938

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ORE RESERVE CALCULATIONS

TABLE III

VALUE OF ORE PER TON

VANADIUM	49.00 pounds @ $0.31	$	15.19
URANIUM	5.00 pounds		
Base Price	$3.50 per pound		17.50
Premium	$0.75 per pound in excess of 4 pounds		0.75
	Value of Uranium per ton		18.25
TOTAL VALUE OF ORE PER TON (excluding development and haulage allowance)		$	33.44

TOTAL GROSS VALUE OF ORE BODY $1,937,446.72

DRILL HOLE LOG

Type of Drill: Diamond - AX

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No.: HR-1
Total depth: 449.0
Collar elev.: 7239 T. P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 67
Date started: 7/26/55
Date completed: 8/3/55
Logged by: A.M.S.

Summary of log: Favorable ; OBSS 387-436 Thick 49 ; SS color: Wh ; at under OBSS 9.1ft. gn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	370.0					Plug Bit No Core
370.0	385.0	MS	R			S, Gn, Mottled
385.0	386.7	SS	L Gn	VF	N	
386.7	387.1	MS	Gn		N	
387.1	389.8	SS	L Gn	F	N	
389.8	429.5	SS	Wh	M	N	S, Int., Gn, MS; S, Gn MS STks. Pblsr.
429.5	430.0	MS	Gn		S	Sandy
430.0	435.4	SS	Wh, Gn	M	S	
435.4	435.7	SS	Gy	M	A	A, Cbn. Stks. Sample #1
435.7	439.0	MS	Gn		N	
439.0	440.2	ST	Gn		N	
440.2	441.8	MS	Gn		N	
441.8	443.5	ST	Gn		N	
443.5	444.8	ST	Gn		N	S, R, Mottled
444.8	449.0	MS	R			

γ-Ray Log (0 – 1000)

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5
#1	435.7	0.3	0.01	0.67		

$CaCO_3$ 6.65

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-1

DRILL HOLE LOG

SIMPSON & WOODARD EXPLORATION CO.

Type of Drill: Diamond - AX

Logged For: Simpson Mining Co.
DMEA - 3649-Idm-E812

Drill-hole No.: HR-2
Total depth: 420.0
Collar elev.: T P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 67
Date started: 8/3/55
Date completed: 8/11/55
Logged by: A.M.S.

Summary of log: Favorable ; OBSS 349.0-400.6 51.6 SS color Wh, Gy MS under OBSS 11.1 Gn Cbn. A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	310.0					Plug Bit - No Core
310.0	330.0	MS	R/Gn		N	Mottled - 20% Gn (core Plug)
330.0	337.0	MS	R		N	1 ST Rib Less than 18" thick
337.0	338.8	MS	Gn		N	
338.8	349.0	MS/ST	R		N	
349.0	352.0	ST	L Gn		N	
352.0	355.9	SS	Gn	F to M	N	A Gn MS in Sand
355.9	370.0	SS	Wh	MF	N	S Gn MS Pbls
370.0	377.0	SS	Wh	MF	S	A Gn MS Stks & Pbls
377.0	378.0	SS	Wh	MF	A	A Cbn Stks; Sample #6
378.0	380.0	SS	Wh	MF	S	A Gn MS Stks & Seams
380.0	381.0	SS	Wh	MF	S	Sample #7
381.0	381.7	SS	Gy to	Bk MF	A	Sample #8
381.7	382.7	SS	Gy	MF	A	Sample #9
382.7	387.9	SS	Wh; Gy	MF	S	S Gn MS Pbls
387.9	390.0	SS	Gy	MF	S	Sample #10
390.0	393.6	SS	Gy	MF	S	Sample #11
393.6	400.6	SS	Wh	MF	S	S Gn MS Pbls
400.6	411.7	MS	Gn		N	
411.7	420.0	MS	R			

γ-Ray Log 0 — 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CACO_3$
#6	378.0	1.0	0.00	0.04			2.19
#7	381.0	1.0	0.00	0.03			4.18
#8	381.7	0.7	0.31	2.13			2.95
#9	382.7	1.0	0.03	0.06			2.48
#10	390.0	2.1	0.02	1.45			1.64
#11	393.6	3.6	0.03	1.46			1.44
Comp.		5.7	0.03	1.46			

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-2

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill Diamond (AX)

Logged For
Simpson Mining Co.
DMEA - 3649-Idm-E812

Drill-hole No. HR-3
Total depth 396.0
Collar elev. 7178 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No. 67
Date started 8/5/55
Date completed 8/16/55
Logged by A.M.S.

Summary of log Favorable ; OBSS 329-380 Thick 51 ; SS color Wh;Gy ; MS under OBSS Gn;8' ; Cbn. A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	310.0					Plug Bit-No Core
310.0	329.6	MS	R		N	S,Gn MS Mottled
329.6	332.4	SS	Gn	M	N	
332.4	357.8	SS	Wh	MF	S	A,Gn,int. MS; S,Gn,MS Stks & Pbls.
357.8	358.4	SS	Bk to Gy	F	A	Sample #12
358.4	359.9	SS	Gy	MF	A	Sample #13 - A Cbn Stks
359.9	360.6	SS	Gy	MF	A	Sample #14 - A Cbn Stks
360.6	361.7	SS	Gy	MF	A	Sample #15 - A Cbn Stks
361.7	362.5	SS	Gy to Bk	MF	A	Sample #16
362.5	368.1	SS	L Gy	MF	S	
368.1	369.2	SS	Gy	MF	A	Sample #17
369.2	380.1	SS	Wh	MF	S	A Gn MS Pbls At 373.5
380.1	386.0	MS	Gn		N	
386.0	388.0	ST	Gn			
388.0	396.0	MS/ST	R			

γ-Ray Log 0 — 1000

SAMPLE	BASE	THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CaCO_3$
#12	358.4	0.6	0.08	1.12			0.39
#13	359.9	1.5	0.04	0.04			3.08
#14	360.6	0.7	0.39	0.18			11.09
#15	361.7	1.1	0.04	0.71			9.48
#16	362.5	0.8	0.03	2.51			3.16
#17	369.2	1.1	0.03	0.87			1.20
Comp.		2.6	0.13	1.12			

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-3

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill: Diamond - AX

Logged For
Simpson Mining Co.
DMEA-3649-Idm-E812

Drill-hole No.: HR-4
Total depth: 333.0
Collar elev. 7117 T P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah # 68
Date started: 8/25/55
Date completed: 8/31/55
Logged by: A.M.S.

Summary of log: Favorable : OBSS 270-320 Thick 50 : SS color Wh, Gy MS Gn 7.0 : Cbn. S
(under OBSS)

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	260.0					Plug Bit -- No Core
260.0	270.3	MS/SS	R		N	
270.3	271.0	SS	Gn	M	N	
271.0	298.5	SS	Wh	M	S	S Gn MS Seams & Pbls
298.5	301.2	MS/ST	Gn		N	Sandy
301.2	304.0	SS	Gy	VF	S	A Gn MS in Sand
304.0	305.0	SS	Gy, Bk	MF	A	Peppery appearance
305.0	305.7	SS	Gy, Bk	MF	A	
305.7	320.7	SS	Wh	M	S	S Gn MS Seams
320.7	324.6	MS	Gn		N	
324.6	327.7	ST	L Gn		N	
327.7	333.0	MS	R		N	

γ-Ray Log
0 — 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CACO_3$
#28	305.0	1.0	0.54	1.37			7.01
#29	305.7	0.7	0.09	2.06			2.69
Comp.		1.7	0.35	1.65			

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-4

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill Diamond -- AX

Logged For
Simpson Mining Co.
DMEA-3649-Idm-E812

Drill-hole No. HR - 5
Total depth 441.0
Collar elev. 7235 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No.67
Date started 7/26/55
Date completed 8/31/55
Logged by A.M.S.

Summary of log Favorable ; OBSS 370-420 Thick 50 ; SS color Wh ; MS under OBSS 6.9 Gn ; Cbn S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	370.0					Plug Bit -- No Core
370.0	380.0	SS	Wh			
380.0	382.0	SS	Wh	MF	N	
382.0	383.5	MS	Gn		N	
383.5	403.7	SS	Gy,Wh	M	N	S Gn MS Splits
403.7	405.0	MS	Gn		N	
405.0	406.7	SS	Gy	MF	S	A MS Gn Int.
406.7	408.3	MS	Gn		N	Sandy
408.3	408.9	SS	Gy,Bk	MF	A	S Gn MS Seams
408.9	415.9	SS	Wh	M	S	S Gn MS Pbls & Seams
415.9	416.3	SS	Gy,Br	MF	A	Dark Cbn Stk in Sand
416.3	420.1	SS	Wh	M	S	A Gn MS Pbls & Stks
420.1	422.3	MS	Bk,Gn		S	
422.3	424.1	SS	Gy	MF	S	A Gn MS
424.1	424.4	SS	Gy	MF	A	A Gn MS
424.4	427.0	MS	Gn		N	
427.0	441.0	MS/ST	R		N	2 ST Ribs

γ-Ray Log 0 1000

SAMPLE	BASE	THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CACO_3$
#25	408.9	0.6	Tr	0.15			0.99
#26	416.3	0.4	Tr	0.32			1.53
#27	424.4	0.3	0.01	0.00			13.59

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant

OBSS—ore bearing sandstone

Hole No. HR #5

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co.
DMEA - 3649-Idm-E812

Drill-hole No.: HR-6
Total depth: 442.0
Collar elev.: T P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 67
Date started: 7/27/55
Date completed: 8/10/55
Logged by: A.M.S.

Summary of log: Favorable ; OBSS 375.2-423.6 ; 48.4 ; SS color Wh; Gy ; MS under OBSS 10/4 ; Cbn. S to A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	300.0					Plug Bit - No Core
300.0	310.0	SS	L Br	C	N	A, CG (Core Plug)
310.0	315.0	SS	Yw	MC	N	C, CG At Base (Core Plug)
315.0	325.0	MS	Gn		N	(Core Plug)
325.0	331.0	MS	R		N	(Core Plug)
331.0	360.0	MS	R/Gn		N	Mottled (Core Plug)
360.0	362.6	ST	R/Gn		N	(Coring Started)
362.6	372.2	MS	R		N	
372.2	375.2	SS	R	MF	N	
375.2	377.6	MS	Gn		N	Sandy
377.6	390.0	SS	Wh	MF	N	S,Gn,MS,Pbls.
390.0	394.8	SS	Wh	MC	N	S,Gn,MS,Pbls.; 50 ft
394.8	413.0	SS	Wh	MF	N	S,Gn,MS,Pbls.
413.0	416.0	SS	Wh	MF	S	
416.0	417.0	SS	Gy	MF	S	Sample #2
417.0	418.0	SS	Gy	MF	S	A,Lim.,Spks & Stks; Sample #3
418.0	419.0	SS	Gy	MF	A	Sample #4
419.0	420.0	SS	Gy	MF	S	Sample #5
420.0	423.6	SS	L Br	MF	S	
423.6	430.5	MS	Gn		N	
430.5	434.0	ST	L Gn		N	
434.0	442.0	MS	R			

γ-Ray Log (0 – 1000)

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CACO_3$
#2	417.0	1.0	0.04	0.12			3.13
#3	418.0	1.0	0.04	0.04			3.13
#4	419.0	1.0	0.23	0.10			2.92
#5	420.0	1.0	0.05	0.29			2.48

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-6

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD EXPLORATION CO.

Type of Drill: Diamond - AX

Logged For: Simpson Mining Co. DMEA 3649--Idm E812

Drill-hole No. HR-7
Total depth 405.0
Collar elev. T. P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No. 67
Date started 8/8 /55
Date completed 8/24/55
Logged by A.M.S

Summary of log Favorable ; OBSS 340-390 Thick 50 ; SS color Wh ; MS under OBSS Gn 8.8 ; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	335.0					Plug Bit-- No Core
335.0	340.3	ST/MS	R		N	
340.3	343.3	SS	Gn	F	N	
343.3	355.9	SS	Wh	MF	N	S Gn MS Stks & Pbls
355.9	362.2	ss	Wh	M	S	A Gn MS Stks & Pbls
362.2	380.7	SS	Wh	MF	S	S Gn MS Stks; A large Gn MS Pbls @ 377ft.
380.7	381.7	SS	L Gy	MF	S	S Gn MS Stks Sample #18
381.7	382.7	SS	Bk,Gy	MF	A	Sample #19
382.7	383.7	SS/MS	Wh,Gn	F - M	S	A Gn MS Pbls;Stks - Sample #20
383.7	385.8	SS	Wh	MC	S	A Gn MS Pbls
385.8	386.8	SS	L Gy	M	S	A Gn MS Pbls;Stks - Sample #21
386.8	390.0	SS	Wh	MF	S	
390.0	394.8	MS	Gn		S	
394.8	398.8	ST	Gnn		N	Hard
398.8	405.0	MS	R			ST,Rib 400 to 402

γ-Ray Log 0 1000

SAMPLE	BASE	THICK	LAB ASSAY % U_3O_8	LAB ASSAY % V_2O_5	FIELD EST. % U_3O_8	FIELD EST. % V_2O_5	$CACO_3$
#18	381.7	1.0	0.03	0.06			6.63
#19	382.7	1.0	0.12	3.11			5.59
#20	383.7	1.0	0.04	0.08			4.60
#21	386.8	1.0	0.00	0.13			4.19

Abbreviations

Wh - white	CG - conglomerate
Br - brown	SS - sandstone
R - red	MS - mudstone
Gy - gray	ST - siltstone
Bl - blue	F - fine
Gn - green	M - medium
Yw - yellow	C - coarse
Bk - black	N - none
Pp - purple	S - sparse
Cbn - carbon	A - abundant
OBSS - ore bearing sandstone	

Hole No. HR-7

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill: Diamond - AX

Logged For
Simpson Mining Co.
DMEA 3649-Idm E812

Drill-hole No. HR-8
Total depth 365.0
Collar elev. ..... T ..... P
Area Beaver Mesa

COORDINATES
North ..... East .....
Tie .....

Claim Rajah No. 68
Date started 8/17/55
Date completed 8/25/55
Logged by A.M.S.

Summary of log Favorable ; OBSS 309-355 Thick 46 ; SS color Wh ; MS under OBSS R ; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	305.0					Plug Bit -- No Core
305.0	309.3	MS	R		N	Sandy
309.3	330.0	SS	Wh	M	S	S Gn MS Seams & Pbls
330.0	331.1	SS	Gy	F	S	
331.1	331.8	MS	Gn		N	
331.8	336.3	SS	Gy	F	S	A Gn MS Seams
336.3	338.3	SS	Gy	MF	S	A Gn MS Pbls, Seams--Sample #22
338.3	340.2	SS	Gy	MF	S	A Gn MS Pbls, Stks-- Sample #23
340.2	341.5	SS	Gy	MF	S	S Gn MS Sample # 24
341.5	354.9	SS	Wh	M	S	S Gn MS Pbls & Stks
354.9	359.7	MS/ST	R		N	
359.7	361.3	ST	Gy		N	Hard
361.3	365.0	MS/ST	R			

γ-Ray Log 0 — 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD ESTIMATE (%) U_3O_8	FIELD ESTIMATE (%) V_2O_5	$CACO_3$
#22 338.3	2.0	0.00	0.05			4.14
#23 340.2	1.9	0.02	0.11			3.43
#24 341.5	1.3	0.00	0.08			4.16

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-8

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

Type of Drill: Diamond-AX

Logged For: Simpson Mining Co.-DMEA 3649-Idm-E812

Drill-hole No.: HR-9
Total depth: 425.0
Collar elev.: 7221 T. P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 67
Date started: Sept. 1, 1955
Date completed: Sept. 12, 1955
Logged by: A. M. S.

Summary of log: Favorable; OBSS 364-412 Thick. 48; SS color Wh; MS under OBSS Gn, 6.4; Cbn. S, A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS	γ-Ray Log (0 – 1000)
0.0	335.0					Plug Bit----No Core	
335.0	364.5	MS	R		N	10% Gn MS	
364.5	367.8	SS	Gn	M-F	N	A Gn MS Int	
367.8	404.0	SS	Wh	M	S	S Gn MS Stks & Pbls	
						S Lim Spks	
404.0	405.0	SS	Gy	MF	A	A Cbn Stks	
405.0	406.3	SS	L Gy	MF	A	Sample #30	
406.3	406.9	SS	Gy, Bk	MF-F	A	Bk Spots in Gy SS " #31	
406.9	407.5	SS	DGy, Bk	F	A	" #32	
407.5	408.9	SS	Gy, Bk	MF-F	A	Bk Spots in Gy SS " #33	
						A Bk MS Pbls	
408.9	409.7	SS	DGy, Bk	MF	A	" #34	
409.7	412.3	SS	LGy, Wh	MF	S	S Gn MS Pbls & Stks	
412.3	414.5	MS	Gn		N		
414.5	418.7	ST	Gn		N		
418.7	425.0	MS/ST	R, Gn		N		

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CACO_3$
#30	406.3	1.3	0.04	0.13			2.45
#31	406.9	0.6	0.52	1.15			3.34
#32	407.5	0.6	0.16	4.87			0.77
#33	408.9	1.4	0.09	2.02			3.23
#34	409.7	0.8	0.82	5.88			3.12
Comp.		3.4	0.35	3.28			

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-9

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill Diamond (AX)

Logged For
Simpson Mining Co.
DMEA 3649-IDm-E812

Drill-hole No. HR-10
Total depth 400.0
Collar elev. 7192 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No. 67
Date started Aug. 26, 1955
Date completed Sept. 14, 1955
Logged by A. M. S.

Summary of log Favorable ; OBSS 336-382 Thick 46 ; SS color Wh ; MS color OBSS 8.5, Gn ; Con. A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	320.0					Plug Bit----No Core
320.0	325.0	MS/ST	R, Gn			Core
325.0	336.3	MS	R		N	ST Rib less than 2.0' thick
336.3	337.2	SS	L Gn	M	N	
337.2	355.1	SS	Wh	M	S	S Gn MS Sm
355.1	355.7	SS	Gn	M	S	A Gn MS Sm & P
355.7	357.2	SS	Wh	M	S	S Gn MS Stks
357.2	362.0	SS	Gy	F	S	A Gn MS Sm & Int; A Cross Bdng
362.0	368.8	SS	Wh	MF	N	A Gn MS Int; Cross Bedding
368.8	377.2	SS	Wh	MF	S	S Gn MS Int
377.2	377.7	SS	Gy	MF	A	Sample #35
377.7	379.1	SS	Gn, Bk	MF	A	Salt & Pepper App.; Samp.#36
379.1	380.0	SS	L Gy	MF	S	Samp.#37
380.0	381.1	SS	Gy-Bk	MF	A	Samp.#38
381.1	382.5	SS	L Gy	MF	A	Dark Stks Samp.#39
382.5	387.7	MS	Gn		N	
387.7	391.0	ST	Gn			
391.0	400.0	MS/ST	R, Gn			

γ-Ray Log 0 100

SAMPLE	BASE	THICK	LAB ASSAY % U_3O_8	LAB ASSAY % V_2O_5	FIELD EST. % U_3O_8	FIELD EST. % V_2O_5	$CaCO_3$
#35	377.7	0.7	0.21	0.13			6.93
#36	379.1	1.4	1.36	1.58			4.93
#37	380.0	0.9	0.13	0.26			2.36
#38	381.1	1.1	0.34	0.53			8.06
#39	382.5	1.4	0.15	0.51			9.00
Comp.		5.5	0.50	0.70			

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-10

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

Type of Drill: Diamond-AX

Logged For: Simpson Mining Co.-DMEA 3649-Idm-E812

Drill-hole No.: HR-11

Total depth: 375.0

Collar elev.: 7178 T. P

Area: Beaver Mesa

COORDINATES

North: East:

Tie:

Claim: Rajah No. 67

Date started: Aug. 26, 1955

Date completed: Sept. 13, 1955

Logged by: A. E. S.

Summary of log: Semi-Fav. ; OBSS 321-347 Thick. 26 ; SS color LGn, Wh MS 0.6, Gn ; Cbn. S
Semi-Fav. 351-368 17 Wh under OBSS R S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	315.0					Plug Bit----No Core
315.0	321.0	MS	R			
321.0	322.0	SS	L Gn	M	N	A Int Gn MS
322.0	347.1	SS	Wh	M	S	S Gn MS Pbls & Seams
347.1	347.7	MS	Gn		N	
347.7	350.7	MS	R			
350.7	351.3	MS	Gn		N	
351.3	351.9	SS	Gn	M	N	A Gn MS Int
351.9	366.7	SS	Wh	M	S	S Gn MS Sm
366.7	367.9	SS	Wh	MF	A	A Cbn Stks 367.5-367.9
						A Gn MS Pbls
367.9	375.0	MS	R		N	10% Gn

γ-Ray Log 0 1000

SAMPLE BASE	SAMPLE THICK.	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-11

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

Logged For

Type of Drill: Diamond (AX)

Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No. HR-12
Total depth 445.0
Collar elev. 7241 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No. 68
Date started Sept. 13, 1955
Date completed Sept. 23, 1955
Logged by A. M. S.

Summary of log: Favorable; OBSS 378-431 Thick 53; SS color Wh; MS under OBSS 4.7-Gn; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	365.0					Plug Bit --- No Core
365.0	370.0	MS/ST	R			Core Plug
370.0	377.7	MS/ST	R		N	
377.7	379.1	SS	Wh	F	N	S Int Gn MS
379.1	381.0	SS	Gn	MF	N	A Int Gn MS
381.0	422.9	SS	Wh	M-MF	S	S Gn MS Stks, P & Int
422.9	423.2	MS	Gn		N	
423.2	425.2	SS	Wh	M	S	A Gn MS P & Stks
425.2	427.0	SS/MS	Wh,Gn	MF	S	Trashy, 60% MS in SS
427.0	431.2	SS	Wh	MF	S-A	S Gn MS
431.2	435.9	ST	Gn		N	
435.9	445.0	ST/MS	R		N	

γ-Ray Log 0 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh = white
R = brown
Gn = green
Gy = gray
Y = yellow
Bk = black
P = purple
Cbn = carbon
CG = conglomerate
SS = sandstone
MS = mudstone
ST = siltstone
F = fine
M = medium
C = coarse
N = none
S = sparse
A = abundant
= carbon bearing sandstone

Hole No. HR-12

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill Diamond (AX)

Logged For
Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No. HR-13
Total depth 380.0
Collar elev. 7188 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No. 67
Date started Sept. 14, 1955
Date completed Sept. 17, 1955
Logged by A.M.S.

Summary of log: Unfavorable OBSS 326-346 Thick 20 ; SS color Wh ; MS R ; Cbn. S
Semi-Fav. 352-368 16 Wh, Gn under OBSS R S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	315.0					Plug Bit----No Core
315.0	325.7	MS	R			
325.7	345.7	SS	Wh	M	S	S Gn MS P & Sm
345.7	351.0	MS/ST	R		N	5% Gn MS
351.0	352.0	MS	Gn		N	
352.0	368.0	SS	Wh, Gn	MF	S	A Gn MS Int & Sm
368.0	380.0	MS/ST	R, Gn		N	30% Gn

γ-Ray Log
0 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-13

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No.: HR- 14
Total depth: 450.0
Collar elev.: 7234 T. P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 67
Date started: Sept. 19, 1955
Date completed: Sept. 26, 1955
Logged by: A. M. S.

Summary of log: Favorable; OBSS 383-431 Thick 48; SS color Wh, Gy; MS under OBSS 15.8, Gn; Cbn. A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS	γ-Ray Log (0 – 1000)
0.0	370.0					Plug Bit No Core	
370.0	380.8	MS	R				
380.8	383.1	MS/ST	Gn		N		
383.1	386.4	SS	Gn	VF	N	A Gn MS in SS, Int.	
386.4	404.4	SS	Wh	M	S	S Gn MS P	
404.4	411.2	SS	Wh	MF	S	A Gn MS P & Stks	
411.2	412.2	SS	Gy, Bk	MF	A	Samp. #40	
412.2	412.8	SS	Gy, Bk	MF	A	Salt & Pepper App. " #41	
412.8	413.7	SS	D Gy	MF	A	" #42	
413.7	415.8	SS	Bk	MF	A	Soft " #43	
415.3	418.8	SS	Wh	MF	S	A Gn MS P in SS; S R MS P	
418.8	419.5	SS	L Gy	MF	S		
419.5	420.5	SS	D Gy	MF	A	Samp. #44	
420.5	430.7	SS	Wh	MF	S		
430.7	446.5	MS/ST	Gn		N		
446.5	450.0	MS	R				

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CACO_3$
#40	412.2	1.0	0.12	8.62			4.88
#41	412.8	0.6	0.37	4.43			13.70
#42	413.7	0.9	0.35	3.63			15.89
#43	415.3	1.6	0.08	16.88			8.22
#44	420.5	1.0	0.62	2.75			7.34
Comp		4.1	0.19	10.13			
		1.0	0.62	2.75			

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
B—blue	F—fine
G—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-14

DRILL HOLE LOG

Type of Drill Diamond (AX)

Logged For
Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No. HR-15
Total depth 409.0
Collar elev. 7198 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No. 16
Date started Sept. 19, 1955
Date completed Sept. 26, 1955
Logged by A. M. S.

Summary of log Favorable ; OBSS 345-395 Thick 50 ; SS color Wh ; MS under OBSS 4.5, Gn ; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	340.0					Plug Bit No Core
340.0	344.6	MS/ST	R		N	
344.6	346.6	SS	Gn	F	N	A Gn MS Int
346.6	370.7	SS	Wh	MF-M	S	S Gn MS Stks
370.7	374.3	SS	L Gy	F	A	A Gn MS Int, Cross Bedding
374.3	389.4	SS	Wh	MF	S	S Gn MS P
389.4	390.9	SS	L Gy	MF	A	Samp. #45
390.9	394.5	SS	Wh	MF	N	
394.5	399.0	MS	Gn		N	
399.0	409.0	MS	R			

γ-Ray Log 0 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5
#45	390.9	1.5	0.00	0.47		

CaCo3
1.86

Abbreviations

W—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
Vb st—ore bearing sandstone	

Hole No. HR-15

DRILL HOLE LOG

Logged For

Type of Drill Diamond (AX)

Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No. HR-16
Total depth 380.0
Collar elev. 7171 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No. 68
Date started Sept. 26, 1955
Date completed Sept. 30, 1955
Logged by A. M. S.

Summary of log Favorable; OBSS 314-365 Thick 50 SS color Wh; MS under OBSS 7.6 Gn; Cbn M

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS	
0.0	310.0					Plug Bit No Core	
310.0	314.4	MS	R		N		
314.4	317.2	SS	Gn	MF	N	A Gn MS Int	
317.2	326.4	SS	Wh	M	N	S Gn MS P & Stks	
326.4	328.0	SS	Wh	F	S	A Gn MS Int	
328.0	345.6	SS	Wh	MF-M	S	A Gn MS P & Stks	
345.6	346.8	SS	Gy	MF	A		Samp #46
346.8	348.0	SS	Gy	MF	A		" #47
348.0	350.0	SS	Wh	M	S		
350.0	351.6	SS	Gy, Bk	MF	A		" #48
351.6	352.3	SS	Bk	MF	A		" #49
352/3	354.4	SS	L Gy	MF	S		" #50
354.4	355.4	SS	Gy	MF	A	Bk Spks in Gy	" #51
355.4	364.5	SS	Wh	MF	S	S Gn MS Stks	
36415	372.1	MS/ST	Gn		N		
372.1	380.0	MS	R				

γ-Ray Log 0 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CaCo_3$
#46	346.8	1.2	0.02	1.61			1.86
#47	348.0	1.2	0.02	2.48			1.62
#48	351.6	1.6	1.57	3.94			Tr
#49	352.3	0.7	0.08	2.92			Tr
#50	354.4	2.1	0.02	0.36			0.22
#51	355.4	1.0	0.08	0.29			2.30
Comp.		2.4	0.02	2.05			
		2.0	0.00	0.00			
		5.4	0.50	1.74			
or							
Comp.		9.8	0.28	1.46			

Abbreviations

Wh - white	CG - conglomerate
R - red	SS - sandstone
Gn - green	MS - mudstone
Gy - gray	ST - siltstone
Bk - black	F - fine
Br - brown	M - medium
Y - yellow	C - coarse
Bk - black	N - none
Pk - pink	S - sparse
Cbn - carbon	A - abundant
OBSS - ore bearing sandstone	

Hole No. HR-16

DRILL HOLE LOG

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Type of Drill: Diamond (AX)

Drill-hole No.: HR-17
Total depth: 434.0
Collar elev. ..... T ..... P
Area: Beaver Mesa

COORDINATES
North ..... East .....
Tie .....

Claim: Rajah No. 67
Date started .....
Date completed: Oct. 25, 1955
Logged by: A.M.S.

Summary of log: Favorable; OBSS 381-423 Thick 42; SS color: Wh; MS under OBSS: Gn, 6.0; Cbn: S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	350.0					Plug Bit No Core
350.0	378.5	MS	R,Gn		N	
378.5	380.5	MS	Gn		N	
380.5	384.1	SS	L Gn	MF	N	A Gn Int MS
384.1	413.4	SS	Wh	MF	N	S Gn MS Sms
413.4	415.5	SS	Wh	MF	S	A Gn MS P & Sms
415.5	418.4	SS	Wh	MF	S	
418.4	419.0	SS	L Gy	MF	A	Sample #65
419.0	422.7	SS	Wh	MF	S	W Gn MS Sms
422.7	428.7	MS	Gn		N	
428.7	434.0	MS/ST	R,Gn			

γ-Ray Log: 0 — 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5
#65	419.0	0.6	0.05	0.26		

CaCo3
3.07

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-17

DRILL HOLE LOG

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Type of Drill: Diamond (AX)

Drill-hole No.: HR-18
Total depth: 415.0
Collar elev.: 7206 T. P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 67
Date started: Oct. 12, 1955
Date completed: Oct. 21, 1955
Logged by: A.M.S.

Summary of log: Favorable; OBSS 348-396 Thick 48; SS color Wh; MS under OBSS Gn, 7.7; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	330.0					Plug Bit No Core
330.0	347.5	MS	R			
347.5	349.8	SS	L Gn	MF	N	A.Gn Int MS
349.8	377.0	SS	Wh	MF	N	S Gn MS P & Sms
377.0	379.2	SS	L Gy	MF	S	S Gn Int MS P & Sms
379.2	387.8	SS	Wh	MF	N	
387.8	388.8	SS	Gy	MF-F	A	Sample #64
388.8	390.2	SS	Wh	MF	N	
390.2	392.7	SS	L Gy	MF-M	S	20% Gn MS P & Sms
392.7	396.2	SS	Wh	MF	N	
396.2	403.9	MS/ST	Gn		N	
403.9	415.0	MS	R			

γ-Ray Log: 0 — 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5
#64	388.8	1.0	0.05	1.28		

CaCO3 3.56

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-18

DRILL HOLE LOG

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No.: HR-19
Total depth: 384.0
Collar elev. ..... T ..... P
Area: Beaver Mesa

COORDINATES
North ..... East .....
Tie .....

Claim: Rajah No. 67
Date started .....
Date completed: Oct. 21, 1955
Logged by: A.M.S.

Summary of log: Favorable; OBSS 326-371 Thick 45; SS color Wh; MS under OBSS Gn, 4.6; Cbn. M

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	315.0					Plug Bit No Core
315.0	325.7	MS/ST	R			
325.7	327.0	SS	L Gn	MF	N	S Int Gn MS
327.0	346.5	SS	Wh	M	N	Broken; S Gn MS Sms
346.5	349.5	SS	L Gn	F	N	A Gn MS Int
349.5	350.6	MS	Gn		N	Sandy
350.6	351.6	SS	Wh	MF	N	
351.6	352.3	SS	Gy	MF	A	Sample #61
352.3	352.4	MS	R, Gn			
352.4	355.8	SS	Wh	MF	S-A	A Int Gn MS
355.8	356.3	SS	Gy	MF	A	Sample #62
356.3	362.1	SS	Wh	M	S	A Int Gn MS
362.1	364.1	SS	L Gy	M	S	S Int Gn MS Sample #63
364.1	365.0	SS	Wh	MC	N	40% Gn MS Sms & P
365.0	370.7	SS	Wh	MF	S	S Lim Spks
370.7	375.3	MS/ST	Gn		N	
375.3	384.0	MS	R, Gn		N	

γ-Ray Log: 0 — 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	CACO3
#61	352.3	0.7	0.14	0.60			8.00
#62	356.3	0.5	0.12	0.51			1.37
#63	364.1	2.0	Tr	Tr			1.75

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-19

DRILL HOLE LOG

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No.: HR-20
Total depth: 460.0
Collar elev.: T P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 67
Date started:
Date completed: Oct. 29, 1955
Logged by: A.M.S.

Summary of log: Favorable; OBSS 399-452 Thick 53; SS color Wh; MS under OBSS Gn, 4.9; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	390.0					Plug Bit No Core
390.0	398.9	MS	R		N	
398.9	404.3	SS	L Gn	MF	N	A Int Gn MS
404.3	451.7	SS	Wh	MF	S	S Gn MS Sms
451.7	456.6	MS	Gn		N	
456.6	460.0	MS/ST	R			

γ-Ray Log 0 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-20

DRILL HOLE LOG

Type of Drill Diamond (AX)

Logged For
Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No. HR-21
Total depth 425.0
Collar elev. 7222 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah #67
Date started 10/10/55
Date completed 10/19/55
Logged by A.M.S.

Summary of log Favorable ; OBSS 365-410 Thick 45 ; SS color Wh ; MS under OBSS Gn, 7.6' ; Cbn A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	340.0					Plug Bit No Core
340.0	363.2	MS	R		N	
363.2	364.5	MS	Gn		N	
364.5	383.2	SS	Wh	M	S	A Gn Int MS P & Sm
383.2	383.5	MS	Gn		N	
383.5	390.1	SS	Wh	MF	S	
390.1	391.8	SS	Wh	MF	S	Cbn Stks; A Gn MS Sm
391.8	392.6	SS	Wh	MF	S	20% Gn MS Sm & P
392.6	403.9	SS	Wh	MF-F	S	A Gn Int MS
403.9	404.5	SS	Wh	M	S	A R & Gn MS P
404.5	405.3	SS	Bk	MF	A	Sample #58
405.3	406.3	SS	Gy	MF	A	Sample #59
406.3	407.3	SS	L Gy	MF	A	Sample #60
407.3	409.5	SS	L Gy	MF	A	A Cbn Fks
409.5	417.1	MS/ST	Gn		N	
417.1	425.0	MS/ST	R			

γ-Ray Log 0 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5
#58	405.3	0.8	0.25	4.53		
#59	406.3	1.0	0.01	0.09		
#60	407.3	1.0	Tr	Tr		

CACO3
3.37
5.61
5.77

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-21

DRILL HOLE LOG

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No.: HR-22
Total depth: 378.0
Collar elev. ..... T ..... P
Area: Beaver Mesa

COORDINATES
North ..... East .....
Tie .....

Claim: Rajah No. 67
Date started .....
Date completed: Oct. 25, 1955
Logged by: A.M.S.

Summary of log: Favorable ; OBSS 326-373 Thick 47 ; SS color Wh, LGn MS under OBSS 0.6, Cn; Cbn S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	320.0					Plug Bit No Core
320.0	326.1	MS	R			
326.1	328.5	SS	L Gn	MF	N	A Int Gn MS
328.5	350.3	SS	Wh	MF	S	S Gn MS Sms
350.3	350.8	MS	Gn		N	
350.8	353.6	MS	R			
353.6	357.9	SS	L Gn	F	N	A Int Gn MS
357.9	358.7	MS	Gn		A	
358.7	372.5	SS	Wh	MF	S	S Gn MS Sms
372.5	373.1	MS	Gn		N	
373.1	378.0	MS	R			

γ-Ray Log: 0 — 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant

OBSS—ore bearing sandstone

Hole No. HR-22

DRILL HOLE LOG

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co.
DMEA 3649 Idm-E812

Drill-hole No.: HR-25
Total depth: 449.0
Collar elev.: 7229 T. P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah #67
Date started: 10/1/55
Date completed: 10/17/55
Logged by: A.M.S.

Summary of log: Favorable; OBSS 378-425 Thick 47; SS color Wh; MS under OBSS Gn, 12.0' Cbn M

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	350.0					Plug Bit No Core
350.0	373.2	MS	R		N	
373.2	377.9	MS	Gn		N	Sandy
377.9	280.2	SS	L Gy	M	N	
380.2	402.8	SS	Wh	MF	N	
402.8	421.0	SS	Wh	MF	S	S Gn MS Sm
421.0	421.4	SS	Gy	MF	A	Gn MS Sm Sample #56
421.4	424.3	SS	Wh	MF	S	S Gn MS P
424.3	424.9	SS	Gy	MF	A	Sample #57
424.9	436.9	MS	Gn		N	
436.9	449.0	ST/MS	R, Gn			

γ-Ray Log 0 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5
#56	421.4	0.4	0.06	4.97		
#57	424.9	0.6	0.03	0.59		

CACO3
1.32
23.13

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-25

DRILL HOLE LOG

Logged For: Simpson Mining Co.

Type of Drill: Diamond (AX)

Drill-hole No.: HR-26
Total depth: 437.0
Collar elev.: 7236 T. P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 67
Date started: 10/1 /55
Date completed: 10/11/55
Logged by: A.M.S.

Summary of log: Favorable; OBSS 377-422 Thick 45; SS color Wh; MS under OBSS Gn, 9.4'; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	360.0					Plug Bit No Core
360.0	375.3	MS	R			
375.3	377.3	MS	Gn		N	
377.3	380.1	SS	Gn	F	N	A Gn Int MS
380.1	396.6	SS	Wh	M	N	S Gn MS Sm & P
396.6	39712	MS	Gn		N	
397.2	406.3	SS	Gn	VF	S	A Gn MS P, Stks & Int
406.3	407.0	SS	Bk	MF	A	A Gn MS in SS; Sample #52
407.0	422.3	SS	Wh	MF	S	S Gn MS Stks
422.3	422.7	SS	Gy	MF	A	Sample #53
422.7	432.1	MS/ST	Gn		N	
432.1	437.0	MS	R			

γ-Ray Log: 0 — 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5
#52	407.0	0.7	0.02	0.38		
#53	422.7	0.4	0.00	0.30		

CACO3
0.93
9.48

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-26

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

RECEIVED
JAN 16 1956

224 New Customhouse
Denver 2, Colorado

January 11, 1956

J. E. Simpson, President
Simpson Mining Company, et al
Box 127, 304 Main Street
Grand Junction, Colorado

Re: Royalty payments, DMEA Docket 3649 (Uranium)
Contract Idm-E812, Simpson Mining Company,
et al, Rajah claims, Mesa County, Colorado

Dear Mr. Simpson:

In reply to your inquiry of January 6, 1956 concerning royalty payments under DMEA contracts, enclosed are several copies of DMEA Order 1 Amended, Section 10 of which explains the method used for computing DMEA royalty payments.

In the case of uranium, the Government's royalty is based on the full gross payment received for the ore. This gross payment includes payment for the metallic content of the ore; development and haulage allowances; any amounts received for better than average grade; and amounts received for the A.E.C. Production Bonus which only applies to the first 10,000 pounds of U_3O_8 shipped from the property.

Lime penalties or other charges made by the mill or buying stations and shown on the settlement sheet are allowable deductions to be considered in calculating DMEA royalty.

It is customary procedure upon your request for the mills to withhold the royalty due as per settlement sheet and to forward payment together with the required four copies of settlement sheet directly to this agency. We then request payment of the A.E.C. Production Bonus royalty (which is 5.0 percent of the uranium payment only) from you. It is very seldom that the full gross value of the shipment will fall below $11.50 per dry ton, and ore of this value requires a royalty payment of 5.0 percent.

All Government royalty checks are to be made payable to the Defense Minerals Exploration Administration and sent to the Executive Officer, DMEA Region III, Room 224 New Customhouse, Denver 2, Colorado.

Yours very truly,

W. M. TRAVER

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

Enclosure
RDB/vj

cc: Royalty File E812
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Berkenkotter
Chron.

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

DEC 28 1955

Mr. Thomas H. Breding
DMEA Auditor
224 New Customhouse
Denver 2, Colorado

Re: Report of Review
IAm-2812, DMEA-3649
Hamilton, et al
and Simpson Mining Co.

Dear Tom:

Receipt is acknowledged of your Report of Review covering the above-cited exploration project contract.

The Report is acceptable and normal distribution may be affected.

Sincerely yours,

C. E. F.

For Jay L. Chambers, Chief
Contract Administration
and Audit Division

WBorovies/wb
December 28, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.S.B.

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

Recd. 12-1-55

Denver Federal Center
Denver, Colorado

November 23, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations

Enclosed are four copies of gamma-ray log interpretations on the following DMEA exploration projects:

DMEA Docket

2771 - Walter Gramlich
3297 - Continental Uranium Company
3475 - Amuranium Corporation
3514 - Climax Uranium Company
3555 - Four Corners Exploration - Bechelor group
3579 - Bula Belle Uranium, Inc.
3582 - Walter Duncan Mining Co.
3632 - Colemar Corporation
3649 - Simpson Uranium Co.
3660 - Mid Continent Uranium Corp.
3675 - Great Frontier Uranium Company
3730 - Vaughey & Vaughey, Curey Ventures
3939 - Westvaco Mineral Products

W. M. Traver

By Townsend

Enclosures

Simpson Uranium Co.
Beaver Mesa
GAMMA-RAY LOG INTERPRETATION DMEA Docket No. 3649

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
HR-21	425.0	340.0 AX	10.0 - 422.3	232.3 - 233.8	1.8	400			<0.010	
				234.2 - 235.1	0.9	600			0.018	
				235.1 - 235.9	0.8	360			<0.010	
				350.2 - 351.7	1.8	260			<0.005	
				402.1 - 402.9	0.8	8600			0.480	
				406.2 - 407.5	1.3	280			<0.010	
HR-22	330.0	None	0.0 - 314.0	188.4 - 189.8	1.4	200			<0.005	
				193.3 - 195.4	2.1	600			0.012	
				195.4 - 197.0	1.6	1200			0.026	
				197.0 - 198.1	1.1	400			<0.010	
				198.1 - 199.5	1.4	200			<0.005	
				200.9 - 201.5	0.6	260			<0.010	
HR-26	437.0	360.0	0.4 - 434.1	229.6 - 230.6	1.0	540	675		0.021	
				231.0 - 231.6	0.6	260	325		<0.010	
				232.3 - 233.4	1.1	240	300		<0.010	
				400.9 - 404.3	3.4	240			<0.005	
				404.3 - 405.2	0.9	500			0.014	
				420.3 - 422.1	1.8	360			<0.010	

* From top to bottom depths

Simpson Uranium
Beaver Mesa
DMEA Docket No. 3649

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
HR-24	445.0	360.0 AX	1.5	442.4	253.5	255.3	1.8	320	370		<0.010	
					332.0	333.2	1.2	620	710		0.019	
					422.6	423.2	0.6	520			0.018	

* From top to bottom depths

Simpson Uranium Co.
Beaver Mesa
GAMMA-RAY LOG INTERPRETATION DMEA Docket No. 3649

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
HR-21	425.0	340.0 AX	10.0	422.3	232.3	233.8	1.8	400			<0.010	
					234.2	235.1	0.9	600			0.018	
					235.1	235.9	0.8	360			<0.010	
					350.2	351.7	1.8	260			<0.005	
					402.1	402.9	0.8	8600			0.480	
					406.2	407.5	1.3	280			<0.010	
HR-22	330.0	None	0.0	314.0	188.4	189.8	1.4	200			<0.005	
					193.3	195.4	2.1	600			0.012	
					195.4	197.0	1.6	1200			0.026	
					197.0	198.1	1.1	400			<0.010	
					198.1	199.5	1.4	200			<0.005	
					200.9	201.5	0.6	260			<0.010	
HR-26	437.0	360.0	0.4	434.1	229.6	230.6	1.0	540	675		0.021	
					231.0	231.6	0.6	260	325		<0.010	
					232.3	233.4	1.1	240	300		<0.010	
					400.9	404.3	3.4	240			<0.005	
					404.3	405.2	0.9	500			0.014	
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* From top to bottom depths

Simpson Uranium
Beaver Mesa
DMEA Docket No. 3649

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
HR-24	445.0	360.0 AX	1.5 - 442.4	253.5 - 255.3	1.8	320	370		<0.010	
				332.0 - 333.2	1.2	620	710		0.019	
				422.6 - 423.2	0.6	520			0.018	

* From top to bottom depths

Simpson Uranium Co.
Beaver Mesa
GAMMA-RAY LOG INTERPRETATIONDMEA Docket No. 3649

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
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				400.9 - 404.3	3.4	240			<0.005	
				404.3 - 405.2	0.9	500			0.014	
				420.3 - 422.1	1.8	360			<0.010	

* From top to bottom depths

Simpson Uranium
Beaver Mesa
DMEA Docket No. 3649

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
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					332.0	333.2	1.2	620	710		0.019	
					422.6	423.2	0.6	520			0.018	

* From top to bottom depths

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

RECEIVED NOV - 9 1955

224 New Customhouse
Denver 2, Colorado

November 7, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company et al., Mesa County, Colorado

Enclosed for your records are four copies of confirmation of verbal work approval by this office.

Also enclosed are four sets of data relevant to the matter.

W. M. Traver

By J. W. Townsend

Enclosures
JWT:prl

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

224 New Customhouse
Denver 2, Colorado

November 3, 1955

Mr. J. E. Simpson
Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Re: Docket DMEA 3649 (Uranium),
Contract Idm-2812

Dear Mr. Simpson:

In reference to your letters of September 15, September 22, September 26, and October 21, 1955, this constitutes confirmation of the Government's verbal approval of September 26, October 5, and October 31, 1955, for the drilling of Stage II drill holes Nos. [illegible]-14 to [illegible]-26.

The locations of the holes are shown on the map Figure I, "Map of Stage I, Proposed Stage II Drill Holes, Rajah 63, 67, and 68 Claims, Hamilton, Harris, McDavid, Phillips, Ladd, and Simpson Mining Company, Gateway Mining District, Mesa County, Colorado," which is attached hereto and made a part of this work authorization.

Nothing in this work approval shall be construed to increase the estimated total cost of the project, the amount of the Government's contribution, nor the agreed unit cost of any item of work.

Very truly yours,

C. W. Tomsid
for W. N. Traver

E. N. Hershman
E. N. Hershman

DMEA Field Team, Region III

Enclosures
JWT:prl
cc: Chairman, Oper. Comm. (4)

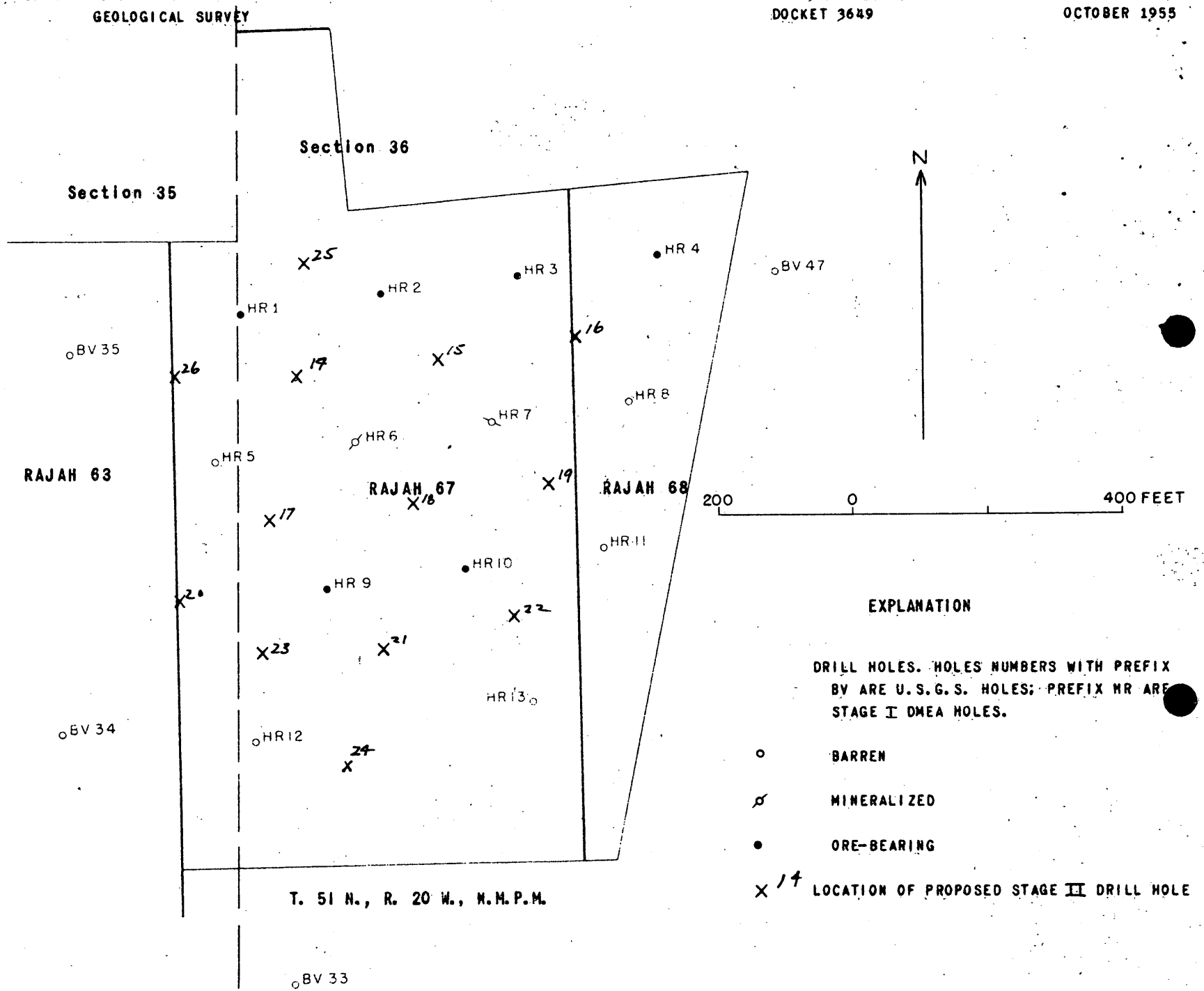

Figure 1. MAP SHOWING STAGE I, PROPOSED STAGE II DRILL HOLES, RAJAH 63, 67, AND 68 CLAIMS, HAMILTON, HARRIS, MCDAVID, PHILLIPS, LADD AND SIMPSON MINING COMPANY, GATEWAY MINING DISTRICT, MESA COUNTY, COLORADO.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
NOV 2 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

November 1, 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: J. William Hasler and M. H. Salsbury

Subject: DMEA 3649 (Uranium) contract Idm-E 812,
Simpson Mining Company, Rajah claims, Beaver Mesa, Colo.

The applicant has requested that proposed stage II diamond-drill hole HR-24 be drilled under the contract. Stage II holes 14 through 23 had been previously approved by the Region III Field Team; however, HR-24, as previously proposed, was held in abeyance pending results of diamond-drill hole HR-21 and HR-23.

Holes HR-21 and HR-23 have been discussed with the applicant, both in the office and in the field, and results have proven to be encouraging. It is, therefore, recommended that the proposed stage II hole HR-24 be drilled under the subject contract.

Verbal approval was given by the Field Team, Region III, on October 31, 1955, and the Operator so notified as of the same date.

J. William Hasler,
Geologist, USGS

M. H. Salsbury
M. H. Salsbury,
Engineer, USBM

JWH/mlr

~~Enclosure~~

Oct. 21, 1955

DMEA
Date Rec'd.
OCT 24 1955
BUREAU OF MINES
Denver, Colorado

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

Re: Docket DMEA 3649
Contract Idm-E812
Rajah Claims

Dear Mr. Traver:

On October 5, 1955, we received the following message from Mr. J. W. Hasler:

> "You have verbal authority on Stage II to drill HR 17 to HR 26 inclusive, except HR 24. Authority for HR 24 only if results of HR 21 and HR 23 indicate it should be drilled."

We have now finished HR 21 and HR 23. Both of these holes are mineralized and both have very favorable geology. Attached herewith are drill hole and assay logs for HR 21 and HR 23.

The purpose of this letter is to again request permission to drill HR 24 at the location indicated on our request dated September 26, 1955.

HR 24, at this location, will be an offset to three (3) favorable holes, two (2) of which are mineralized.

Very truly yours,

SIMPSON MINING COMPANY

J. E. Simpson

J. E. Simpson

JES:jb
Encl. Drill Log HR 21 & HR 23
cc: (5) W. M. Traver
(1) J. W. Hasler

COPY

DRILL HOLE LOG

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Type of Drill: Diamond (AX)

RECEIVED NOV - 9 1955

Drill-hole No.: HR-21
Total depth: 425.0
Collar elev.: 7222 T P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah #67
Date started: 10/10/55
Date completed: 10/19/55
Logged by: A.M.S.

Summary of log: Favorable; OBSS 365-410 Thick. 45; SS color. Wh; MS under OBSS Gn, 7.6'; Cbn. A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	340.0					Plug Bit No Core
340.0	363.2	MS	R		N	
363.2	364.5	MS	Gn		N	
364.5	383.2	SS	Wh	M	S	A Gn Int MS P & Sm
383.2	383.5	MS	Gn		N	
383.5	390.1	SS	Wh	MF	S	
390.1	391.8	SS	Wh	MF	S	Cbn Stks; A Gn MS Sm
391.8	392.6	SS	Wh	MC	S	20% Gn MS Sm & P
392.6	403.9	SS	Wh	MF-F	S	A Gn Int MS
403.9	404.5	SS	Wh	M	S	A R & Gn MS P
404.5	405.3	SS	Bk	MF	A	Sample #58
405.3	406.3	SS	Gy	MF	A	Sample #59
406.3	407.3	SS	L Gy	MF	A	Sample #60
407.3	409.5	SS	L Gy	MF	A	A Cbn Fks
409.5	417.1	MS/ST	Gn		N	
417.1	425.0	MS/ST	R			

γ-Ray Log 0 — 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	CACO3
#58	405.3	0.8	0.25	4.53			3.37
#59	406.3	1.0	0.01	0.09			5.61
#60	407.3	1.0	Tr	Tr			5.77

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant

OBSS—ore bearing sandstone

Hole No. HR-21

DRILL HOLE LOG

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co. DMEA 3649-Idn-E812

Drill-hole No.: HR-23

Total depth: 437.0

Collar elev. ..... T ..... P

Area: Beaver Mesa

COORDINATES

North ..... East .....

Tie .....

Claim: Kajah No. 67

Date started .....

Date completed: 10/15/55

Logged by: A.M.S.

Summary of log: Favorable ; OBSS 376-426 Thick 50 ; SS color Wh, Gy MS Gn, 54 under OBSS ; Cbn. M

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	360.0					Plug Bit No Core
360.0	376.0	MS/ST	R			
376.0	378.4	SS	Gn	MF	N	A Gn MS Int
378.4	415.3	SS	Wh	MF	S	S Gn MS P & Sm
415.3	415.9	MS	Gn		N	
415.9	422.3	SS	Wh	MF	S	S Gn MS Sm
422.3	423.2	SS	Gy	MF	A	Sample 54
423.2	424.0	SS	L Gy	MF	S	Sample 55
424.0	425.9	SS	Wh	MF	N	
425.9	431.3	MS	Gn		N	
431.3	437.0	MS	R			

γ-Ray Log 0 — 1000

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5
#54	423.2	0.9	0.01	0.37		
55	424.0	0.8	0.00	0.30		

CACO 3
8.66
11.51

Abbreviations

Wh—white	C—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant

OBSS—ore bearing sandstone

DMEA
RECEIVED
OCT 11 19
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES DEPARTMENT OF THE INTERIOR
P. O. BOX 360
GRAND JUNCTION, COLORADO

October 10, 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

E. M. H.
JW

From: J. William Hasler and M. H. Salsbury

Subject: DMEA 3649 (Uranium), contract Idm-E 812, Hamilton, Harris, McDavid, Phillips, Ladd and Simpson Mining Company. Application for approval of proposed stage II work.

The applicant requested authorization to complete stage II drilling as provided in the contract Idm-E 812, on three separate dates. This was done in an attempt to decrease the time lag between the two stages of drilling.

The first request, dated September 15, 1955, was made for three stage II holes designed to offset stage I holes HR-1 to 8, inclusive, (fig. 1 attached). These holes, HR-14, 15, and 16, were approved verbally by the Region III Field Team September 26, 1955, since holes HR-1 to 8 were all either in ore, mineralized ground, or favorable ore-bearing Salt Wash sandstone.

The second request, dated September 2~~3~~2, was for five stage II holes to offset stage I holes between HR-5, 6, 7, 8 and Hr-9, 10, and 11 as well as HR-12 and 13. A third request dated September 26, 1955, was for five stage II holes to bring the total number of stage II holes to 13 as specified in the contract.

Request for the first three holes was made before stage I was completed, although enough data were available to evaluate that part of stage I drilling, and recommend these holes.

The first eight stage II holes were laid out on a diagonal pattern between the fences of stage I holes to test the intervening ground for extensions of previously discovered ore or mineralized ground. The holes are all in excess of 70 feet from any previously drilled hole as stipulated under the contract. Stage II holes will average about 430 feet in depth.

Proposed holes HR-22, 23, 24, 25, and 26 are designed to test a southwesterly trend of minerlization across the Rajah 68, 67, and 63 claims (fig. 1).

A resume of results of stage I drilling and the first three stage II holes is shown in the following table:

Company data		Laboratory assays		Depth of mineralization (feet) Min. being >0.02% U_3O_8 or >0.02% V_2O_5
Hole no.	Thickness (feet)	% U_3O_8	% V_2O_5	Base
ϕ HR-1	0.3	0.01	0.67	435.7
● HR-2	0.7	0.31	2.13	381.7
	1.0	0.03	0.06	382.7
	2.1	0.02	1.45	390.0
	3.6	0.03	1.46	393.6
● HR-3	0.6	0.08	1.12	358.4
	1.5	0.04	0.04	559.9
	0.7	0.39	0.18	360.6
	1.1	0.04	0.71	361.7
	0.8	0.03	2.51	362.5
	1.1	0.03	0.87	369.2
● HR-4	1.0	0.54	1.37	305.0
	0.7	0.09	2.06	305.7
o HR-5	Barren, sandstone favorable			
● HR-6	1.0	0.04	0.12	417.0
	1.0	0.04	0.04	418.0
	1.0	0.23	0.10	419.0
	1.0	0.05	0.29	420.0
● HR-7	1.0	0.03	0.06	381.7
	1.0	0.12	3.11	382.7
	1.0	0.04	0.08	383.7
ϕ HR-8	1.9	0.02	0.11	340.2
● HR-9	1.3	0.04	0.13	406.3
	0.6	0.52	1.15	406.9
	0.6	0.16	4.87	407.5
	1.4	0.09	2.02	408.9
	0.8	0.82	5.88	409.7

Company data		Laboratory assays		Depth of mineralization (feet) Min. being > 0.02% U_3O_8 or > 0.50 V_2O_5
Hole no.	Thickness (feet)	% U_3O_8	% V_2O_5	Base
● HR-10	0.7	0.21	0.13	377.7
	1.4	1.36	1.58	379.1
	0.9	0.13	0.26	380.0
	1.1	0.34	0.53	381.1
	1.4	0.15	0.51	382.5
o HR-11	Barren			
o HR-12	Barren			
o HR-13	Barren			
		Stage II		
● HR-14	1.0	0.12	8.62	412.2
	0.6	0.37	4.43	412.8
	0.9	0.35	3.63	413.7
	1.6	0.08	16.88	415.3
	1.0	0.62	2.75	420.5
o HR-15	Barren			
● HR-16	1.2	0.02	1.61	346.8
	1.2	0.02	2.48	348.0
	1.6	1.57	3.94	351.6
	0.7	0.08	2.92	352.3
	2.1	0.02	0.36	354.4
	1.0	0.08	0.29	355.4

An analyses of the accompanying data shows that stage I drilling has proven very encouraging and that the likelihood of finding ore bodies of commercial size and grade on the Rajah 68, 67, 63 claims is good.

It is recommended that the following proposed stage II holes be approved: HR 14 to 26 inclusive with exception of HR 24. The area in the vicinity of HR 24 should first be tested by holes HR 21 and 23. If these holes prove favorable, then HR 24 may be drilled.

Verbal approval for the above recommended drilling was given by the Region III Field Team October 5, 1955, and the applicant was notified of this approval.

Enclosed are the required number of maps (fig. 1) for inclusion in the work authority.

D. R. Haynes for
J. William Hasler
Geologist, USGS

M. H. Salsbury
M. H. Salsbury
Engineer, USBM

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3649
OCTOBER 1955

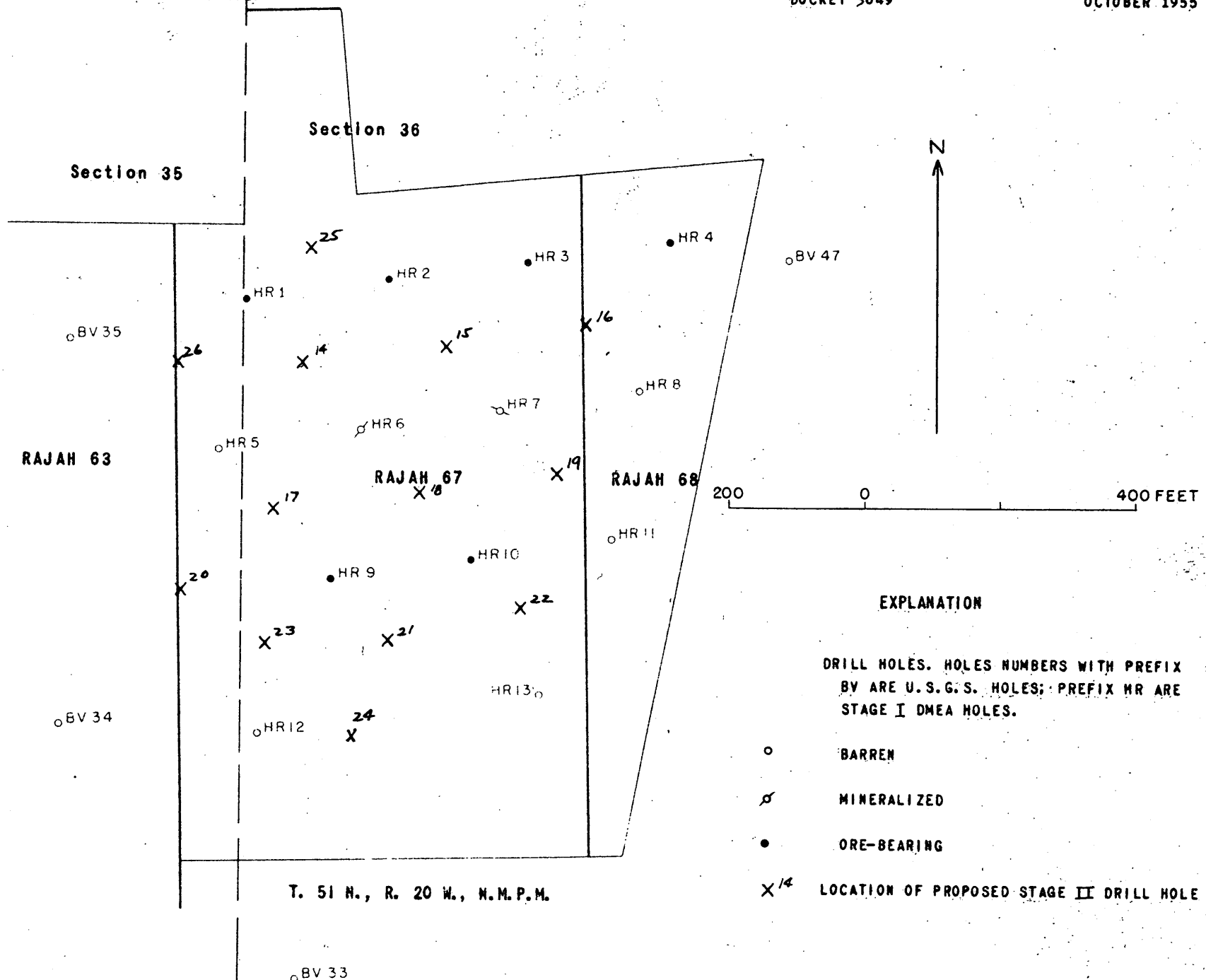

Figure 1. MAP SHOWING STAGE I, PROPOSED STAGE II DRILL HOLES, RAJAH 63, 67, AND 68 CLAIMS, HAMILTON, HARRIS, MCDAVID, PHILLIPS, LADD AND SIMPSON MINING COMPANY, GATEWAY MINING DISTRICT, MESA COUNTY, COLORADO.

Sept. 26, 1955

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

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

Re: Docket DMEA 3649
Contract Idm-E812
Rajah Claims

Dear Mr. Traver:

Hole No. HR 12 of Stage I of the above captioned contract has been completed and we enclose herewith a geologic drill hole log of same. This hole was barren but favorable and completes all of Stage I.

We have previously requested approval from your office for the location of 8 of the 13 holes of Stage II (See our letters of September 15 and 23, 1955).

The purpose of this letter is to request approval from your office for the 5 remaining holes of Stage II.

The suggested location for these last 5 holes (HR 22, HR 23, HR 24, HR 25, HR 26) of Stage II part of the contract are shown in red on the attached map.

The request as given above and the attached map and drill hole log for HR 12 are submitted for approval of the following listed last 5 drill holes for Stage II drilling.

COPY

Drill Hole No.	Claim	Estimated Collar Elevation	Estimated Depth	Estimated Plug Bit Depth
HR 22	Rajah No. 67	7196	400	335
HR 23	Rajah No. 67	7254	457	393
HR 24	Rajah No. 67	7248	448	380
HR 25	Rajah No. 67	7224	436	363
HR 26	Rajah No. 67	7237	448	370

Very truly yours,

SIMPSON MINING COMPANY

J. E. Simpson

JES:jb
Encl. Drill Log HR 12
Drill Map
CC: (5) W. M. Traver

COPY

DRILL HOLE LOG

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co.
DMEA 3649-Idm-E812

Drill-hole No.: HR-12
Total depth: 445.0
Collar elev.: 7241 T. P
Area: Beaver Mesa

COORDINATES
North: East:
Tie:

Claim: Rajah No. 68
Date started: Sept. 13, 1955
Date completed: Sept. 23, 1955
Logged by: A. M. S.

Summary of log: Favorable; OBSS 378-431 Thick 53; SS color Wh; MS under OBSS 4.7-Gn; Cbn. S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	365.0					Plug Bit --- No Core
365.0	370.0	MS/ST	R			Core Plug
370.0	377.7	MS/ST	R		N	
377.7	379.1	SS	Wh	F	N	S Int Gn MS
379.1	381.0	SS	Gn	MF	N	A Int Gn MS
381.0	422.9	SS	Wh	M-MF	S	S Gn MS Stks, P & Int
422.9	423.2	MS	Gn		N	
423.2	425.2	SS	Wh	M	S	A Gn MS P & Stks
425.2	427.0	SS/MS	Wh, Gn	MF	S	Trashy, 60% MS in SS
427.0	431.2	SS	Wh	MF	S-A	S Gn MS
431.2	435.9	ST	Gn		N	
435.9	445.0	ST/MS	R		N	

γ-Ray Log: 0 — 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-12

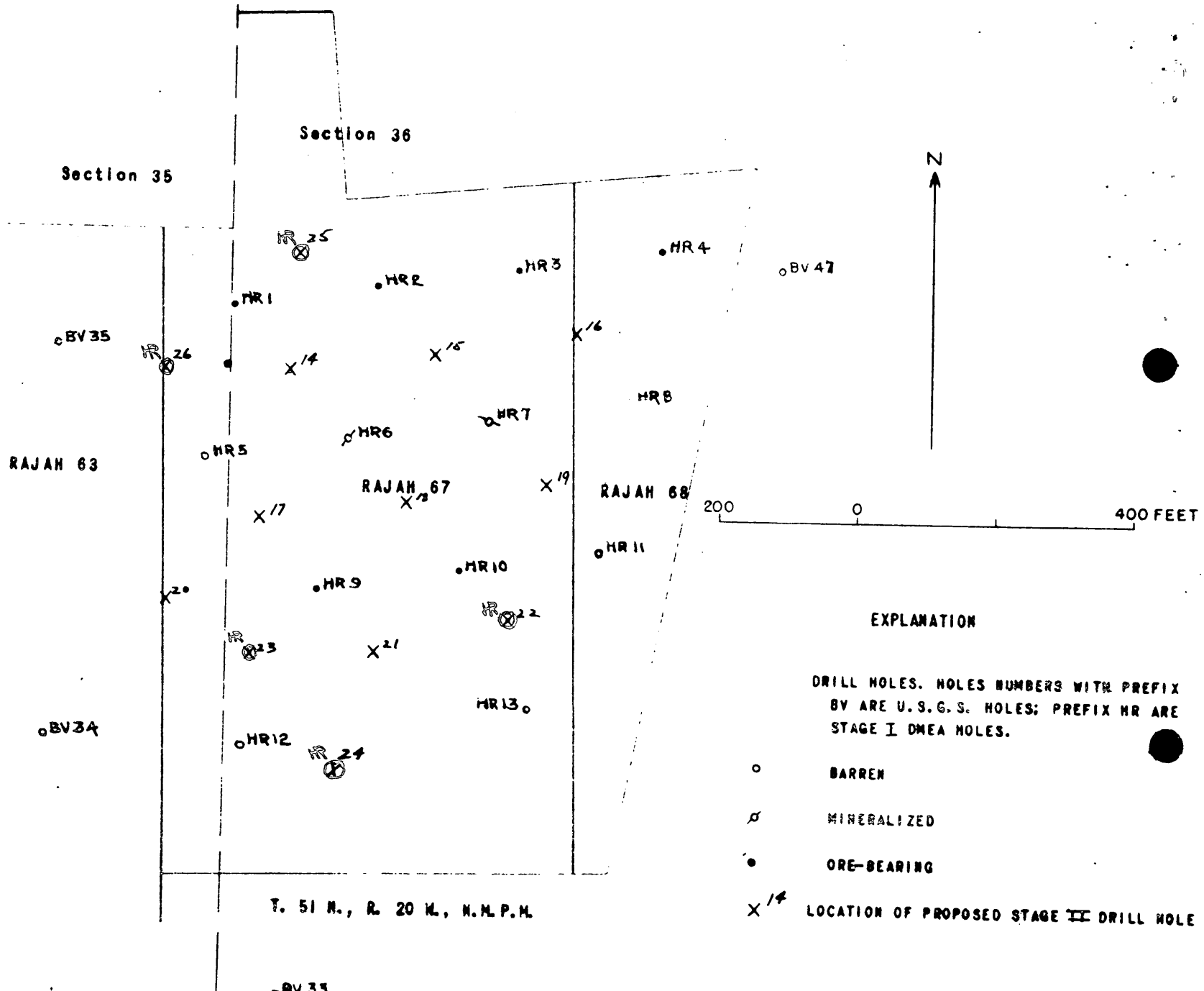

Figure 1. MAP SHOWING STAGE I, PROPOSED STAGE II DRILL HOLES, RAJAH 63, 67, AND 68 CLAIMS, HAMILTON, HARRIS, MCDAVID, PHILLIPS, LADD AND SIMPSON MINING COMPANY, GATEWAY MINING DISTRICT, MESA COUNTY, COLORADO.

Sept. 22, 1955

/DMEA
Date Rec'd.

SEP 23 1955

BUREAU OF MINES
Denver, Colorado

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

Re: Docket DMEA 3649
Contract Idm-E812
Rajah Claims

Dear Mr. Traver:

Since our letter of September 15, 1955, and request for approval of the location of 3 holes of the 13 which we propose to drill under Stage II of the captioned contract, we have completed 4 additional holes (HR 9, HR 10, HR 11 and HR 13) of Stage I.

Of the 13 holes of Stage I (HR 1 - HR 13) 12 of them are now complete, leaving only HR 12 which is presently being drilled.

We are enclosing geologic and assay logs for hole Nos. HR 9, HR 10, HR 11 and HR 13. Hole Nos. HR 9 and HR 10 are strongly mineralized and HR 11 and HR 13 are barren.

The purpose of this letter is to request approval from your office for 5 more of the 13 holes we propose to drill under Stage II.

The suggested location for these additional 5 holes (HR 17, HR 18, HR 19, HR 20 and HR 21) of Stage II part of the contract are shown in red on the attached map.

In this letter along with the one of September 15 we have requested approval of 8 of the 13 holes of Stage II. The suggested location for the remaining 5 holes of Stage II will be submitted at a later date.

The request as given above and the attached map and drill logs is submitted for approval of the following listed drill holes for a part of Stage II drilling.

COPY

Drill Hole No.	Claim	Estimated Collar Elevation	Estimated Depth	Estimated Plug Bit Depth
HR 17	Rajah No. 67	7240	432	364
HR 18	Rajah No. 67	7207	418	349
HR 19	Rajah No. 67	7184	389	326
HR 20	Rajah No. 67	7263	392	464
HR 21	Rajah No. 67	7217	346	410

Very truly yours,

SIMPSON MINING COMPANY

J. E. Simpson

JES:jb
Enclosures

COPY

DRILL HOLE LOG

Type of Drill: Diamond-AX

Logged For: Simpson Mining Co.-DMEA 3649-Idm-E812

Drill-hole No.: HR-9
Total depth: 425.0
Collar elev.: 7221 T. P
Area: Beaver Mesa

COORDINATES
North East
Tie

Claim: Rajah No. 67
Date started: Sept. 1, 1955
Date completed: Sept. 12, 1955
Logged by: A. M. S.

Summary of log: Favorable; OBSS 364-412 Thick 48; SS color Wh; MS under OBSS Gn, 6.4; Cbn. S, A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS	γ-Ray Log (0 – 1000)
0.0	340.0					Plug Bit----No Core	
340.0	364.5	MS	R		N	10% Gn MS	
364.5	367.8	SS	Gn	M-F	N	A Gn MS Int	
367.8	404.0	SS	Wh	M	S	S Gn MS Stks & Pbls	
						S Lim Spks	
404.0	405.0	SS	Gy	MF	A	A Cbn Stks	
405.0	406.3	SS	L Gy	MF	A	Sample #30	
406.3	406.9	SS	Gy,Bk	MF-F	A	Bk Spots in Gy SS " #31	
406.9	407.5	SS	DGy,Bk	F	A	" #32	
407.5	408.9	SS	Gy,Bk	MF-F	A	Bk Spots in Gy SS " #33	
						A Bk MS Pbls	
408.9	409.7	SS	DGy,Bk	MF	A	" #34	
409.7	412.3	SS	LGy,Wh	MF	S	S Gn MS Pbls & Stks	
412.3	414.5	MS	Gn		N		
414.5	418.7	ST	Gn		N		
418.7	425.0	MS/ST	R,Gn		N		

	SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CACO_3$
#30	406.3	1.3	0.04	0.13			2.45
#31	406.9	0.6	0.52	1.15			3.34
#32	407.5	0.6	0.16	4.87			0.77
#33	408.9	1.4	0.09	2.02			3.23
#34	409.7	0.8	0.82	5.88			3.12
Comp.		3.4	0.35	3.28			

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-9

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill: Diamond (AX)

Logged For: Simpson Mining Co.
DMEA 3649-IDm-E812

Drill-hole No. HR-10
Total depth 400.0
Collar elev. 7192 T P
Area Beaver Mesa

COORDINATES
North East
Tie

Claim Rajah No. 67
Date started Aug. 26, 1955
Date completed Sept. 14, 1955
Logged by A. M. S.

Summary of log: Favorable ; OBSS 336-382 Thick 46 ; SS color Wh ; MS under OBSS 8.5, Gn ; Con. A

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	320.0					Plug Bit----No Core
320.0	325.0	MS/ST	R, Gn			Core Plug
325.0	336.3	MS	R		N	ST Rib less than 2.0' thick
336.3	337.2	SS	L Gn	M	N	
337.2	355.1	SS	Wh	M	S	S Gn MS Sm
355.1	355.7	SS	Gn	M	S	A Gn MS Sm & P
355.7	357.2	SS	Wh	M	S	S Gn MS Stks
357.2	362.0	SS	Gy	F	S	A Gn MS Sm & Int; A Cross Bdng
362.0	368.8	SS	Wh	MF	N	A Gn MS Int; Cross Bedding
368.8	377.2	SS	Wh	MF	S	S Gn MS Int
377.2	377.7	SS	Gy	MF	A	Sample #35
377.7	379.1	SS	Gn, Bk	MF	A	Salt & Pepper App.; Samp.#36
379.1	380.0	SS	L Gy	MF	S	Samp.#37
380.0	381.1	SS	Gy-Bk	MF	A	Samp.#38
381.1	382.5	SS	L Gy	MF	A	Dark Stks Samp.#39
382.5	387.7	MS	Gn		N	
387.7	391.0	ST	Gn			
391.0	400.0	MS/ST	R, Gn			

γ-Ray Log 0 1000

SAMPLE	BASE	THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5	$CaCO_3$
#35	377.7	0.7	0.21	0.13			6.93
#36	379.1	1.4	1.36	1.58			4.93
#37	380.0	0.9	0.13	0.26			2.36
#38	381.1	1.1	0.34	0.53			8.06
#39	382.5	1.4	0.15	0.51			9.00
Comp.		5.5	0.50	0.70			

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-10

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COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

Type of Drill: Diamond-AX

Logged For: Simpson Mining Co.-DMEA 3649-Idm-E812

Drill-hole No.: HR-11

Total depth: 375.0

Collar elev.: 7178 T ..... P

Area: Beaver Mesa

COORDINATES

North ..... East .....

Tie .....

Claim: Rajah No. 67

Date started: Aug. 26, 1955

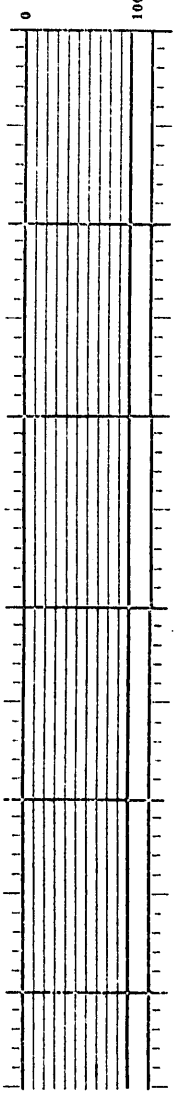
Date completed: .....

Logged by: A. M. S.

Summary of log .....; OBSS ..... Thick .....; SS color ..... ; MS ..... under OBSS ; Cbn. .....

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	315.0					Plug Bit----No Core
315.0	321.0	MS	R			
321.0	322.0	SS	L Gn	M	N	A Int Gn MS
322.0	347.1	SS	Wh	M	S	S Gn MS Pbls & Seams
347.1	347.7	MS	Gn		N	
347.7	350.7	MS	R			
350.7	351.3	MS	Gn		N	
351.3	351.9	SS	Gn	M	N	A Gn MS Int
351.9	366.7	SS	Wh	M	S	S Gn MS Sm
366.7	367.9	SS	Wh	MF	A	A Cbn Stks 367.5-367.9
						A Gn MS Pbls
367.9	375.0	MS	R		N	10% Gn

γ-Ray Log



SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-11

Copyrighted 1954 by SIMPSON & WOODARD CO.

COLORADO PRINTING CO., GRAND JUNCTION

DRILL HOLE LOG

SIMPSON & WOODARD
EXPLORATION CO.

Type of Drill Diamond (AX)

Logged For
Simpson Mining Co.
DMEA 3649-Idm-E812
Rajah No. 67

Drill-hole No. HR-13
Total depth 380.0
Collar elev. 7188 T P
Area Beaver Mesa

COORDINATES
North East
Tie

RECEIVED NOV - 9 1955

Date started Sept. 14, 1955
Date completed Sept. 17, 1955
Logged by A.M.S.

Summary of log Unfavorable: OBSS 326-346 Thick 20; SS color Wh; MS R; Cbn S
Semi-Fav. 352-368 16 Wh, Gn under OBSS R S

DEPTH From	DEPTH To	Rock	Color	Grain	Carbon	REMARKS
0.0	315.0					Plug Bit----No Core
315.0	325.7	MS	R			
325.7	345.7	SS	Wh	M	S	S Gn MS P & Sm
345.7	351.0	MS/ST	R		N	5% Gn MS
351.0	352.0	MS	Gn		N	
352.0	368.0	SS	Wh, Gn	MF	S	A Gn MS Int & Sm
368.0	380.0	MS/ST	R, Gn		N	30% Gn

γ-Ray Log 0 1000

SAMPLE BASE	SAMPLE THICK	LAB ASSAY (%) U_3O_8	LAB ASSAY (%) V_2O_5	FIELD EST. (%) U_3O_8	FIELD EST. (%) V_2O_5

Abbreviations

Wh—white	CG—conglomerate
Br—brown	SS—sandstone
R—red	MS—mudstone
Gy—gray	ST—siltstone
Bl—blue	F—fine
Gn—green	M—medium
Yw—yellow	C—coarse
Bk—black	N—none
Pp—purple	S—sparse
Cbn—carbon	A—abundant
OBSS—ore bearing sandstone	

Hole No. HR-13

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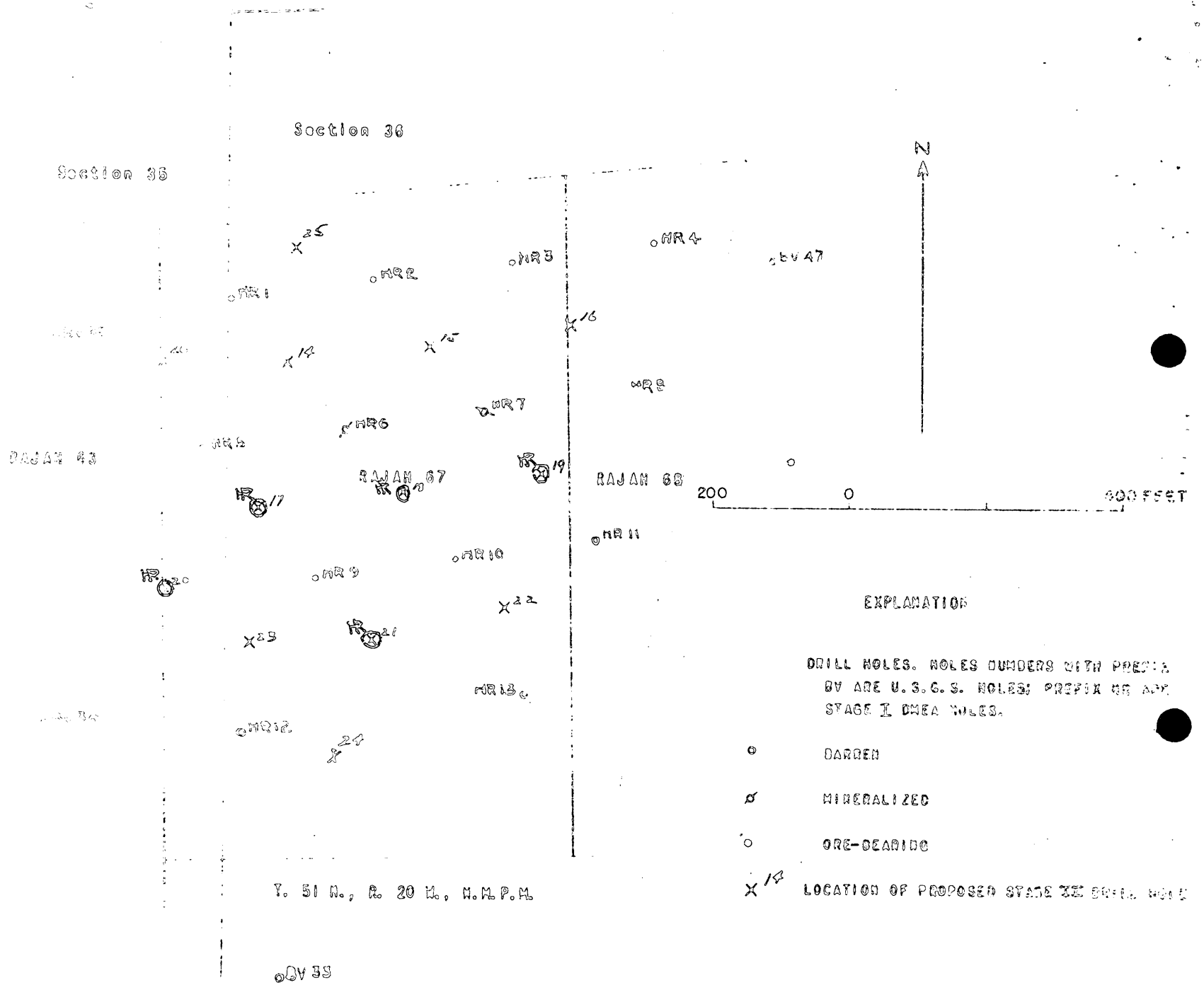
COLORADO PRINTING CO., GRAND JUNCTION



MAP SHOWING STAGE I, PROPOSED STAGE II DRILL HOLES, RAJAH 63, 67, AND 68 CLAIMS, HAMILTON, HARRIS, MCDAVID, PHILLIPS, LADD AND SIMPSON MINING COMPANY, GATEWAY MINING DISTRICT, MESA COUNTY, COLORADO.

DMEA
Date Rec'd.

OCT 21 1955

BUREAU OF MINES
Denver, Colorado

Sept. 15, 1955

DMEA
Date Rec'd.

SEP 16 1955

BUREAU OF MINES
Denver, Colorado

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

Re: Docket DMEA 3649
Contract Idm-E812
Rajah Claims

Dear Mr. Traver:

Eight holes (HR 1 thru HR 8) of Stage I of the above captioned contract have been completed.

The August Progress Report which contains all pertinent data concerning these eight holes was mailed to Mr. John F. Shaw on September 9, 1955.

The results to date have been very encouraging and we shall wish to drill all 13 holes of Stage II.

The purpose of this letter is to request approval from your office for 3 of the 13 holes we propose to drill under Stage II.

A study of the data compiled from the first 8 holes (HR 1 - HR 8) of Stage I has been evaluated as follows:

Hole Nos. HR 1, HR 2, HR 3, HR 4, HR 5, HR 6, HR 7, and HR 8 are all mineralized and favorable.

Refer to drill hole logs and assay sheets submitted with the August 1955 Report on the first 8 holes of Stage I for basis of above evaluation.

The suggested location for 3 of the 13 holes of Stage II part of the contract are shown on the attached map. The 3 holes (HR 14, HR 15 and HR 16) are shown in red at the intersection of diagonals of the first 8 holes drilled under Stage I.

COPY

The suggested location for the remaining 10 holes of Stage II will be submitted at a later date.

The request as given above and the attached map, together with reference to the first 8 holes completed under Stage I reported in Progress Report for August, 1955, is submitted for approval of the following listed drill holes for a part of Stage II drilling:

Drill Hole No.	Claim	Estimated Collar Elevation	Estimated Depth	Plug Bit Depth
HR 14	Rajah No. 67	7231	445	375
HR 15	Rajah No. 67	7197	412	349
HR 16	Rajah No. 68	7165	380	316

Very truly yours,

SIMPSON MINING COMPANY

J. E. Simpson

JES:jb
Enclosure

COPY

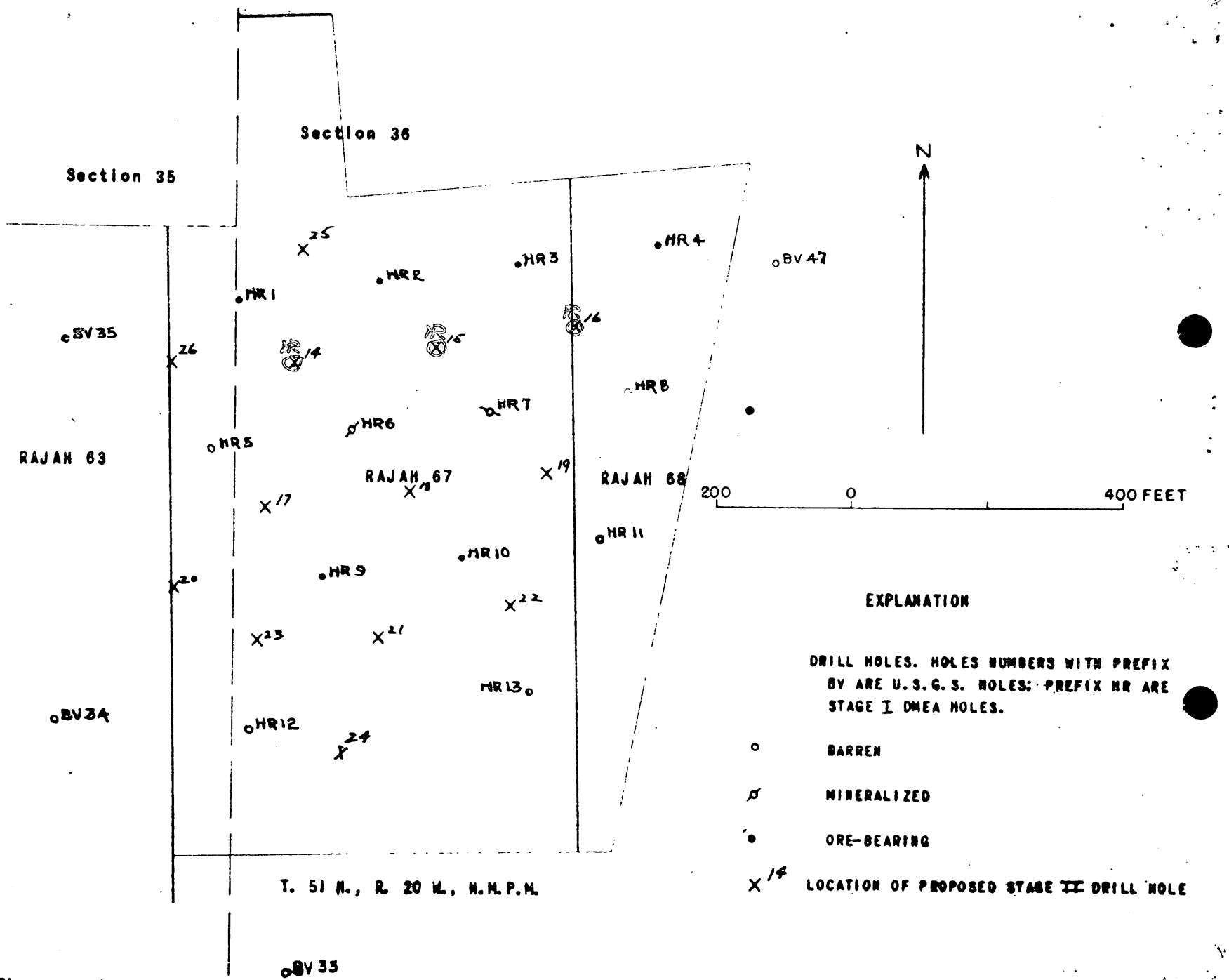


Figure 1. MAP SHOWING STAGE I, PROPOSED STAGE II DRILL HOLES, RAJAH 63, 67, AND 68 CLAIMS, HAMILTON, HARRIS, MCDAVID, PHILLIPS, LADD AND SIMPSON MINING COMPANY, GATEWAY MINING DISTRICT, MESA COUNTY, COLORADO.

Mr. Murphy
100
Contract file

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

224 New Customhouse
Denver 2, Colorado

October 11, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations for:
DMEA 2771, Contract Idm-E577, Gramlich Exploration Company
DMEA 3297, Contract Idm-E800, Continental Uranium, Inc.
DMEA 3449, Contract Idm-E745, United States Uranium Company
DMEA 3475, Contract Idm-E760, Amuranium Corporation
DMEA 3555, Contract Idm-E791, W. A. Greer (Four Corners Exploration Company)
DMEA 3649, Contract Idm-E812, Simpson et al Mining Company
DMEA-3579, Contract Idm-E794, Eula Belle Uranium, Inc.
DMEA 3582, Contract Idm-E796, Walter Duncan Mining Company
DMEA 3514, Contract Idm-E823, Climax Uranium Company
DMEA 3614, Contract Idm-E795, Western Oil Fields, Inc.

Ret to USGS 10/19/55

Enclosed are four copies of gamma-ray log interpretations for holes drilled on the subject properties with transmittal memorandum by E. N. Harshman, Region III DMEA Field Team member.

W. M. Traver

By J. W. Townsend

JC:ab

c
o
p
y

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

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

October 6, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N.Harshman

Subject: Gamma-ray log interpretation data

Enclosed are eight copies each of gamma-ray log interpretations for the following projects:

DMEA 2771 - Walter Gramlich
" 3297 - Continental Uranium Corp., Big Indian area
" 3449 - U. S. Uranium, Red Hill claim
" 3475 - Amuranium Corporation
" 3555 - Four Corners Exploration Co., Bull Canyon
" 3571 - Simpson Mining Company, Rajah claims
" 3579 - Herome Craig, Ula Bella claims
" 3582 - Walter Duncan Mining Co.
" 3514 - Climax Uranium, Beaver Mesa
" 3614 - Western Oil Fields, Binder group

Four copies of each log interpretation should be forwarded to the Chairman of the Operating Committee for information.

/s/ E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (10)

c
o
p
y

Simpson
Rajah Claims - Beaver Mesa

GAMMA-RAY LOG INTERPRETATION DMEA Docket No. ~~3571~~ 3649

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
HR-10	390.0	290.0 AX	0.0-387.0	205.1-207.4	2.3	320.	370		<0.010	
				207.4-208.8	1.4	11,000.	12,265		0.370	
				208.8-210.4	2.4	400.	460		<0.010	
				375.6-377.0	1.4	44,000.			1.500	
				37[illegible].0-379.3	2.3	9,900			0.320	
				380.2-381.0	0.8	320.			<0.010	

* From top to bottom depths

Simpson
Rajah Claims - Beaver Mesa
DMEA Docket No. ~~3571~~ 3649

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
HR-10	390.0	290.0 AX	0.0-387.0	205.1-207.4	2.3	320.	370		<0.010	
				207.4-208.8	1.4	11,000.	12,265		0.370	
				208.8-210.4	2.4	400.	460		<0.010	
				375.6-377.0	1.4	44,000.			1.500	
				377.0-379.3	2.3	9,900			0.320	
				380.2-381.0	0.8	320.			<0.010	

* From top to bottom depths

Simpson
Rajah Claims - Beaver Mesa

GAMMA-RAY LOG INTERPRETATION DMEA Docket No. ~~3571~~ 3649

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
HR-10	390.0	290.0 AX	0.0-387.0	205.1-207.4	2.3	320.	370		<0.010	
				207.4-208.8	1.4	11,000.	12,265		0.370	
				208.8-210.4	2.4	400.	460		<0.010	
				375.6-377.0	1.4	44,000.			1.500	
				377.0-379.3	2.3	9,900			0.320	
				380.2-381.0	0.8	320.			<0.010	

* From top to bottom depths

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

RECEIVED
SEP 26 1955

224 New Customhouse
Denver 2, Colorado

September 22, 1955

Mr. J. E. Simpson
Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Re: DMEA-3649, Contract Idm-E812

Dear Mr. Simpson:

In compliance with your request of September 20, 1955, enclosed are two sets of Form MF-103. The Form MF-203 (Owner's Consent to Lien) is prepared only after it is known what claims are to be included in the contract and is prepared and forwarded by this office. One copy of Form MF-203 is enclosed for your information.

The five claims included in Contract Idm-E812, Rajah Nos. 61, 62, 63, 67 and 68 are subordinated to the Government under this contract. If you wish to do exploration work on your adjoining claims you may request an amendment to the present contract to include the additional claims. This would necessitate your filing a new DMEA application for exploration on the additional claims.

Very truly yours,

W. M. Traver

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

Enclosures
HMC:pw

cc: Harshman
Shaw
Sec.Op.Comm. (2)
Contract Idm-E812
Chron

SIMPSON MINING COMPANY
204 MAIN STREET
P. O. BOX 127
GRAND JUNCTION COLORADO

September 20, 1955

DMEA
Date Rec'd.
SEP 21 1955
FIELD TEAMS
Denver, Colorado

RECEIVED
SEP 26 1955

Mr. W. M. Traver
Executive Officer, Region III
DMEA Field Team
U. S. Department of the Interior
224 New Customhouse Building
Denver 2, Colorado

Dear Mr. Traver:

Please send us 20 copies of Form MF-103 and MF-203.

We have 5 claims that are now being partially explored under Docket No. DMEA-3649, Contract No. Idm-E812.

Would the DMEA consider including three of these claims which are not being drilled under this contract in another new DMEA project on adjoining claims?

Very truly yours,

SIMPSON MINING COMPANY

J. E. Simpson

J. E. Simpson

JES:jb

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

224 New Customhouse
Denver, Colorado

July 15, 1955

Certified Mail

Memorandum

To: Chairman, Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3649 (Uranium), Contract Idm-E812, Simpson Mining Company, et al, (Rajah Claims), Mesa County, Colorado

Enclosed are the Government, Division and Docket copies of Contract Idm-E812 which has been signed by the operator. The contract was received in this office on June 10, 1955. Also enclosed are the original and two copies of two Powers of Attorney designating Julian E. Simpson to act as the agent of the Joint Venture.

Copies of the contract have been given to the operator, the Finance Office, Region III, and a copy has been retained for our files.

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, Colorado

RECEIVED JUL 18 1955

July 15, 1955

Certified Mail

Mr. Julian E. Simpson
Simpson Mining Company
P. O. Box 127
304 Main Street
Grand Junction, Colorado

Re: DMEA 3649 (Uranium)
Contract Idm-E812
Simpson Mining Company, et al
(Rajah Claims) Mesa County, Colorado

Dear Mr. Simpson:

Enclosed herewith is the "Operator's Copy" of Exploration Project Contract No. Idm-E812, Docket DMEA 3649.

Also enclosed are six copies of Form MF-104, "Operator's Monthly Report and Voucher" and six copies of Form MF-104A, "Operator's Unit Cost and Progress Report". At the completion of the first calendar month of operation and monthly thereafter you are required to submit five copies of the forms to Mr. J. H. Shaw, U. S. Bureau of Mines, Room 137, Building 20, Denver Federal Center, Denver 2, Colorado. The sixth form is for your records.

Please note that the monthly report requires a narrative report which should be accompanied by maps or sketches. The narrative report must be signed by the operator. The monthly report will not be processed for payment unless accompanied by a narrative report. Additional copies of Forms MF-104 and MF-104A will be forwarded to you as required.

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 it will be sent to the Regional Office, Region III, U. S. Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, for auditing and vouchering. If the report is in order a check will be issued by the Treasury Department for the Government's portion of the costs. If you have any difficulty in completing these forms and the reports, please call on Mr. Shaw or this office for assistance. Two engineers have been stationed at Grand Junction in the U.S.G.S. building and are available for consultation with regard to operating and reporting procedures.

In the matter of your claim for reimbursement of drilling costs, reimbursement to you under the terms of the contract will be on the basis of a hole or holes completed to the objective, therefore your monthly report should include only such holes that are completed.

Under the provisions of the contract the unit cost established for each item of work under Category (1) for all stages are allowable maximum unit costs which cannot be exceeded. The actual cost of each item of work under Category (1) Must be documented in conformance with the instructions in the next to the last paragraph on the reverse side of Form MF-104. The actual cost up to the allowable maximum unit cost established, and as supported by the documentation, will be the basis for reimbursement to you under the terms of the contract.

When Stage I has been completed you should request approval from this office of the work you propose to perform under the next stage. Your request for the work approval must be in sextuplicate, complete with a map showing the location of the holes drilled under Stage I, the proposed location of holes to be drilled under Stage II and the results of the work performed under Stage I, including assay returns and any other pertinent data which will be of value to the Government in evaluating the work performed under Stage I. You should anticipate a suspension of operations between stages of work to enable the Government geologist and engineer to evaluate the results of the work performed and make their recommendations to this office relative to the additional work you propose.

To eliminate as much delay 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.

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 theWashington Office, DMEA or the DMEA Field Team, Region III, which is comprised of E. N. Harshman, U. S. Geological Survey member, and W. M. Traver, U.S. Bureau of Mines member.

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 also a requirement that you notify this office in writing the date work actually commences under the contract, with a copy of your letter to Mr. Shaw.

Very truly yours,

W. M. Traver

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

Enclosures

WMT:dja
cc: Subject
Chron

Amendment File
Ch.Op.Comm.(2)
Harshman
Shaw
Hasler
Townsend

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

RECEIVED
JUN 17 1955

RECEIVED
JUN 17 1955

224 New Customhouse
Denver 2, Colorado

June 14, 1955

Mr. J. E. Simpson
Simpson Mining Company
Post Office Box 127
Grand Junction, Colorado

Re: Docket DMEA-3649

Dear Mr. Simpson:

To complete the processing of your contract, further clarification is required.

Apparently Kathleen P. Ladd has an interest with Graham B. Ladd in the nine percent ownership of the claims which are the subject of the exploration project, but has no interest in the application. If this is correct, please have Kathleen P. Ladd sign and return all six copies of the enclosed Owner's Consent to Lien.

Because the Joint Venture is composed of many individuals, it will be beneficial to the future administration of the contract to have the partners agree on one member of their group to act on behalf of all partners. It is, therefore, suggested that all of the partners designate one member by giving him Power of Attorney to sign the contract and conduct all affairs under the contract for the Joint Venture, consisting of:

Arthur Hamilton	1410 1st National Bank Building Dallas, Texas
John W. Harris	918 Milam Building San Antonio, Texas
W. D. McDavid	918 Milam Building San Antonio, Texas
Otis Phillips, Jr.	1410 1st National Bank Building Dallas, Texas
Rex Phillips	918 Milam Building San Antonio, Texas
Graham B. Ladd	918 Milam Building San Antonio, Texas

Simpson Mining Company,
a partnership comprised of Julian E. and Alan M. Simpson

Box 127, 304 Main Street
Grand Junction, Colorado

As an example only, a suggested form of Power of Attorney is as follows:

Power of Attorney

We, the undersigned, do hereby designate Julian E. Simpson, a partner in the Simpson Mining Company, to act as the agent of a Joint Venture consisting of:

"Arthur Hamilton, John W. Harris, W. D. McDavid, Otis Phillips, Jr., Rex Phillips, Graham B. Ladd, and the Simpson Mining Company"

in all affairs pertaining to a proposed Defense Minerals Exploration Project Contract between the Joint Venture and the Government, such affairs to include: signing of the Contract and any Amendments thereto, rendering of monthly and final reports as required by the Contract, receipt of monies due the Joint Venture under the terms of the Contract, and payment to the Government of any and all royalties due under the terms of the Contract.

Executed this _____ day of _____, 1955.

Signed_____
Arthur Hamilton

Signed_____
John W. Harris

Signed_____
W. D. McDavid

Signed_____
Otis Phillips, Jr.

Signed_____
Rex Phillips

Signed_____
Graham B. Ladd

Signed SIMPSON MINING COMPANY

By_____
Partnership designated as Agent

In addition another Power of Attorney is necessary, designating one of the partners of the Simpson Mining Company to act in behalf of the Simpson Mining Company in all matters pertaining to a proposed Defense Minerals Exploration Project Contract between the Government and a Joint Venture in which the Simpson Mining Company is a participant.

When all the above instruments have been returned to this office properly executed, we will be in a position to process the Contract in final form.

Very truly yours,

W. M. Traver

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

Enclosures

HMC:sr

cc Subject
Chairman, Op. Comm. (2)
Connors
Townsend
Chron

Surname 700

Murphy
Ellis
Talbut
Selfridge
Johnson

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

JUN - 8 1955

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

Re: Docket No. DMEA-3649 (Uranium)
Hamilton, et al., and Simpson
Mining Company
Rajah Group of claims
Mesa County, Colorado

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed long-form contract between the Government and the captioned group of individuals together with the Simpson Mining Company.

In transmitting the prepared contract to the Administrator the Legal Division notes: .... "The application states that the project will be supervised by the Simpson Mining Company. However, the application is signed by Julian E. Simpson as an individual in behalf of the joint venture. Accordingly, it would seem that the contract should be signed by Simpson Mining Company by Julian E. Simpson in behalf of the joint venture or evidence should be submitted of the authorization of Julian E. Simpson to sign as an individual in behalf of the joint venture."

When the above observation has been complied with, if you and the Operator find the proposed contract in order, please insert in Article 3 of the contract form the date work shall commence. Then have the authorized representative of the joint venture sign the original and all copies; thereafter, kindly make the usual distribution.

Sincerely yours,

Chairman, Operating Committee (JHB)

P. S. Apparently Kathleen P. Ladd has an interest with Graham B. Ladd in the 9 percent ownership of the claims which are the subject of the project, but has no interest in the application. If this is correct, a Consent to Lien should be obtained from her prior to execution of the contract, and the fact that it was obtained inserted in Article 2 (c) of the contract form.

Enclosures

APPROVED:

(JHB)
Member, Bureau of Mines

(JHB)
Member, Geological Survey

FMurphy:am
6-3-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Murphy

R.C.h.

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

JUN - 2 1955.

Memorandum

To: The Administrator, DMEA
Attention: Mr. E. W. Ellis

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3649, Hamilton, Harris, McDavid, Phillips, Ladd, & Simpson Mining Co. (Uranium)

Pursuant to Mr. Murphy's memorandum of May 17, we have prepared the attached contract in satisfactory legal form for execution.

The application states that the project will be supervised by Simpson Mining Company. However, the application is signed by Julian E. Simpson as an individual in behalf of the joint venture. Accordingly, it would seem that the contract should be signed by Simpson Mining Company by Julian E. Simpson in behalf of the joint venture, or evidence should be submitted of the authorization of Julian E. Simpson to sign as an individual in behalf of the joint venture.

Harry C. Rubin
H. C. Rubin
For J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Attachments

5/24/55-gla

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

May 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: Report of Examination, DMEA Docket 3649 (Uranium), Hamilton et al., and Simpson Mining Company, Rajah claims, Mesa County, Colorado

I have reviewed the Field Team report of examination, Rajah group of claims, Hamilton, Harris, McDavid, Phillips, Ladd and Simpson Mining Company, DMEA Docket 3649. Mr. Joseph O. Hosted, Washington representative of the Atomic Energy Commission, also has reviewed the report and we have discussed it together.

Mr. Hosted has indicated that in his judgment the results of drilling on and near the Rajah group does not warrant the exploration program recommended by the Field Team. He suggests that three holes be drilled across the north end of the Rajah No. 67 Claim to determine if mineralization in the area north of the claims trends into claim No. 67. Three of the five holes drilled in the area, adjacent to claim No. 67, showed ore-grade mineralization. Other holes on and near the Rajah claims were barren or weakly mineralized.

I strongly recommend that the proposed exploration program be denied. Eight holes have been drilled on the property. Three were barren, and the remaining five only weakly mineralized. Of eight holes located adjacent to the Rajah claims, three contained ore-grade mineralization, two were weakly mineralized, and three were barren. The location of these holes is such that, at best, only a fence of three or four holes should be allowed at the north end of Rajah No. 67 Claim to ascertain if the ore-grade mineralization could conceivably trend toward the Rajah No. 67 Claim.

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

John E. Crawford
John E. Crawford

5/24/55 gla

IN REPLY REFER TO:

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

May 23, 1955

Re: DMEA-3649
Hamilton et al. &
Simpson Mining Co.
Rajah Claims
Beaver Mesa
Mesa County, Colo.
$36,172.40 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends approval of a 2-stage program: 13 Stage 1 holes about 200-300 feet apart on a rough grid pattern and 13 offset holes 70 to 100 feet from favorable or mineralized Stage 1 holes. Holes will average about 400 feet in depth.

The proposed Stage 1 is based upon the results of previous Survey drilling and appears to have a reasonable chance of cutting a "lumsden type" deposit.

Because of the size of the targets (250 x 500±) Stage 2 borders on development. You may want to at least halve the proposed Stage 2 program.

RDTrace

R. D. Trace

Surname 700

Murphy

Ellis

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

May 17, 1955

Memorandum

To: Acting Assistant Solicitor, DMEA

From: F. M. Murphy, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Proposed Contract
Docket No. DMEA-3649 (Uranium)
Hamilton, Harris, McDavid, Phillips,
Ladd and Simpson Mining Company
Rajah group of claims
Mesa County, Colorado

Will you kindly prepare a long-form contract with the subject applicant in accordance with the attached draft.

F. M. Murphy

Attachments

FMMurphy:am

cc to: Docket
Code 700
Mr. Murphy

5/20/55 gla

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

224 New Customhouse
Denver 2, Colorado

May 16, 1955

Mr. J. E. Simpson
Simpson Mining Company
Post Office Box 127
Grand Junction, Colorado

Re: Docket DMEA-3649

Dear Mr. Simpson:

This will acknowledge receipt of your letter dated May 13, 1955 requesting the status of the subject docket.

The Report of Examination was forwarded to the DMEA Washington office for final action on May 9, 1955 and you will hear from them within a reasonable time.

Should further correspondence be required, we suggest that you write Mr. C. O. Mittendorf, Administrator, DMEA, Department of the Interior, Washington 25, D. C.

Very truly yours,

W. M. TRAVER,

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

HMC:sr

cc Subject
Administrator, DMEA (2) w/enc
Harshman
Chron

SIMPSON MINING COMPANY
304 MAIN STREET
P. O. BOX 127
GRAND JUNCTION, COLORADO

MAY

May 13, 1955.

W. M. Traver
Executive Officer, DMEA
Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA - 3649

Gentlemen:

A field examination of the Rajah No. 67 and 68 claims was made March 30, 1955, by Mr. C. M. Harrer, of the U.S. Bureau of Mines, and since that date we have heard nothing from your office in regard to the above mentioned DMEA application.

If at all possible, would you please inform as to the present status of our application?

Any information you may give us will be greatly appreciated.

Very truly yours,

SIMPSON MINING COMPANY

BY J. E. Simpson
J. E. SIMPSON

5/17/55 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 12 1955

ON-SITE EXAM

224 New Customhouse
Denver 2, Colorado

May 9, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Report of Examination, DMEA Docket-3649 (Uranium), Hamilton et al., and Simpson Mining Company, Rajah claims, Mesa County, Colorado

Enclosed are the original and three copies of the report pertaining to the above application.

We concur with the recommendations of the field examiners in a two stage exploration program.

Rajah claims No. 61, No. 62 and No. 63 will benefit from the exploration and should be included with Rajah claims No. 67 and No. 68 in the proposed contract. This was agreeable to the applicant at the time of the field examination.

~~Six~~ Nine copies each of Figures 1, 2 and 3 are attached for possible use in the contract.

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
5-16-55
(date)

/DMEA
Date Rec'd.

MAY 3 1955

BUREAU OF MINES
Denver, Colorado

Region III

TRANSMITTED
MAY 9 1955

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado

April 29, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw, Supervising Mining Engineer

Subject: Docket No. DMEA 3649, Simpson Mining Company, et al, Mesa County, Colorado

Enclosed are the original and 11 copies of a summary, conclusions, and recommendations by C. M. Harrer, Mining Engineer, and Noel W. Bevins, Geologist, and the original and 11 copies of an engineering report by C. M. Harrer covering Docket No. DMEA 3649.

Application was made for DMEA assistance to explore the Rajah claims numbers 67 and 68 by 10,694 feet of core drilling at an estimated cost of $40,744.14. The property was examined on March 30, 1955, by an examining team from the Geological Survey and the Bureau of Mines. The examining team recommended a revised program. It is recommended that an exploration contract be prepared in two stages consisting of 26 core drill holes totalling 10,694 feet, at an estimated cost of $36,172.40.

John F. Shaw

John F. Shaw

cc: 11 w/orig
DMEA 3649
Chron

JFS/mh

Reviewed by
DMEA OPERATING COMMITTEE
5-16-55
(Date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 12 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3649, Rajah No. 67 and No. 68 Claims
Hamilton, Harris, McDavid, Phillips, Ladd and Simpson Mining Company
Mesa County, Colorado

Uranium

C. M. Harrer, Mining Engineer
Bureau of Mines

Noel W. Bivens, Geologist
Geological Survey

April 26, 1955

RECEIVED BY
DMEA OPERATING OFFICE
5-16-55

DEPT. OF THE INTERIOR
Minerals Administration
RECEIVED
MAY 12 1955

DMEA 3649
RAJAH NO. 67 AND NO. 68 CLAIMS
HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD AND SIMPSON MINING CO.
MESA COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By C. M. Harrer
Mining Engineer
Bureau of Mines

Noel W. Bivens
Geologist
Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
5-16-55
(date)

DMEA 3649
RAJAH NO. 67 AND NO. 68 CLAIMS
HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD AND SIMPSON MINING CO.
MESA COUNTY, COLORADO

DEPT. OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 12 1955

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By C. M. Harrer and Noel W. Bivens

An investigation of the Rajah claims Nos. 67 and 68 and the adjoining Rajah claims Nos. 61, 62 and 63 on Beaver Mesa in Mesa County, Colorado (figs. 1 and 2), was made by a Defense Minerals Exploration Administration field team on March 30, 1955. Mr. J. E. Simpson of Grand Junction represented the applicants.

Application was made for DMEA assistance to explore the Rajah claims Nos. 67 and 68 in two stages by core drilling. The proposed work would consist of 26 holes totalling 10,694 feet at an estimated cost of $40,744.14.

The applicants Arthur Hamilton, John W. Harris, W. D. McDavid, Otis Phillips, Jr., Rex Phillips, Graham B. and Kathleen P. Ladd, and Simpson Mining Co., of Grand Junction, have joint and complete ownership of the Rajah Group of unpatented mining claims as a partnership. Claim locations and property rights of the owners were verified and found satisfactory.

All of the significant uranium deposits found in the Beaver Mesa area are in sandstone lenses within the Salt Wash member of the upper Jurassic Morrison formation.

Uranium deposits at Beaver Mesa contain unoxidized to partly oxidized uranium-vanadium ore. Principal minerals reported by the Geological Survey are uraninite, coffinite, montroseite, lumsdenite

and doloresite. Uranium deposits usually occur in or near concentrations of carbonaceous material known locally as "trash pockets" in lenticular and irregularly bedded sandstone horizons.

Two types of ore bodies occur in the area: (1) small deposits which may contain 200 to 300 tons each, and (2) large "Lumsden type" deposits which may contain 13,000 to 21,000 tons each. Average grade of the ore in the Beaver Mesa area is 0.38 percent U_3O_8 and 1.5 percent V_2O_5.

The possibility of finding commercial deposits of uranium by diamond drilling favorable trends in the Salt Wash formation as defined by the Geological Survey appears good and the discovery of a "Lumsden type" deposit or its equivalent would repay the Government's equity in royalties and the applicants' outlay.

A revised exploration program was agreed on by the examining team and the applicants' representative Julian E. Simpson, of Simpson Mining Company, during a field conference on March 30, 1955. The revised exploration program will be in two successive stages calling for a total of 26 core drill holes totalling 10,694 feet at a cost of $36,172.40.

=1,782/mo. or 91/day or 34 [illegible]

A contract for 10,694 feet of size AX plug and core drilling, 1 to be completed in 6 months, at an estimated cost of $36,172.40 is recommended for approval. Government participation of 75 percent would be $27,129.30.

[illegible] 96% [illegible]

The Rajah claims Nos. 61, 62 and 63 should be included in land subject to subordination.

DMEA 3649
RAJAH NO. 67 AND NO. 68 CLAIMS
HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD AND SIMPSON MINING CO.
MESA COUNTY, COLORADO

Engineering Report

By C. M. Harrer
Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
5-16-55
(date)

DMEA 3649
RAJAH NO. 67 AND NO. 68 CLAIMS
HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD AND SIMPSON MINING CO.
MESA COUNTY, COLORADO

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ILLUSTRATIONS

Figure	Follows Page
1. Location map, Hamilton, Harris, McDavid, Phillips, Ladd, and Simpson Mining Co., Rajah claims, Mesa County, Colo. (DMEA 3649 - Uranium)	2
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DMEA 3649
RAJAH NO. 67 AND NO. 68 CLAIMS
HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD AND SIMPSON MINING CO.
MESA COUNTY, COLORADO

OF THE INTERIOR
Minerals Administration
RECEIVED
MAY 12 1955

ENGINEERING REPORT

By

C. M. Harrer

INTRODUCTION

Arthur Hamilton, John W. Harris, W. D. McDavid, Rex Phillips, Otis Phillips, Jr., Graham B. and Kathleen P. Ladd, and Simpson Mining Company of Grand Junction, Colorado, have applied for Defense Minerals Exploration Administration assistance to explore their Rajah Nos. 67 and 68 unpatented mining claims on Beaver Mesa, in the Gateway Mining District of Mesa County, Colorado. They propose to explore the aforementioned claims with a two stage core and non-core drilling program consisting of 26 holes totalling 10,694 feet at an over all cost of $40,744.14.

A field investigation of the property was made on March 30, 1955 by a Region III DMEA examining team with Julian E. Simpson of Simpson Mining Company representing the applicants. The Geological Survey was represented by T. J. Mullens, Lee J. Eicher and Noel W. Bivens.

The applicants' exploration proposal was modified somewhat during the field conference and agreed upon with the applicants' representative, J. E. Simpson.

ACKNOWLEDGMENTS

Data on the property was furnished by the applicants' representative, Julian E. Simpson. The results of exploration on Beaver Mesa by the Geological Survey were available to the examining team and are

the basis of the revised exploration program. The Atomic Energy Commission was consulted through regular channels. The Commission has no field information of consequence in this particular area.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Rajah uranium claims Nos. 67, 68, 61, 62 and 63 are in secs. 35 and 36, T. 51 N., R. 20 W., New Mexico Principal Meridian, on Beaver Mesa, in the Gateway Mining District of Mesa County, Colorado, at an altitude of about 7,200 feet. The region is typical Colorado Plateau mesa land, with terraced benches forming a high table land intersected by deep and steep walled canyons. (Fig. 1).

Precipitation is moderate to heavy, with violent thunderstorms in summer and occasional heavy snowfall in winter. Year around operations are feasible and some year around work has been successful in recent years.

The Rajah group of claims are about 12 miles by rough access road from all weather Colorado State Highway 141 where it crosses the Dolores River at Gateway, Colorado. The 12 miles of access road, going up John Brown Canyon, serves the Beaver Mesa area and is well travelled. Gateway is 61 miles southwest of Grand Junction, the nearest city and source of supplies. The nearest ore buying stations and treatment plants are the U. S. Vanadium Company mill at Uravan 48 miles distant and the Climax Uranium Company mill at Grand Junction about 73 miles distant.

Water for drilling would be impounded in ponds at a spring about one quarter mile from the property and would be hauled to drill locations in truck mounted tanks. John Brown Creek is about 3.5 miles from the property. No power is available in the area and equipment must be actuated by gasoline or diesel engine power units.

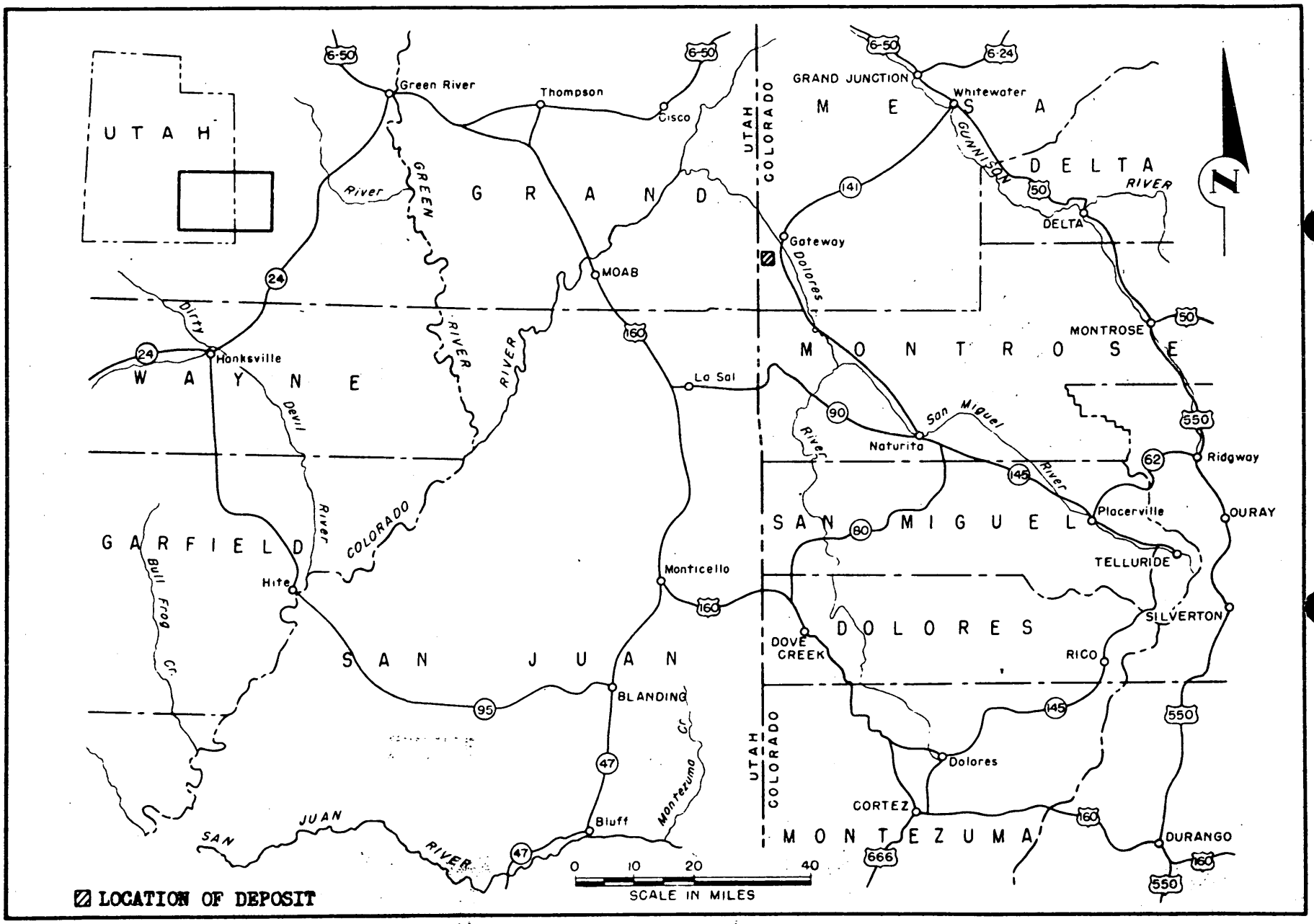


FIGURE 1 - LOCATION MAP, HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD AND SIMPSON MINING COMPANY, RAJAH CLAIMS (URANIUM), MESA COUNTY, COLO. DMEA 3649

LABOR AND LIVING CONDITIONS

There are no housing facilities within commuting distance of Beaver Mesa and operating personnel are housed in trailers or cabins convenient to mine workings. Equipment for surface drilling operations usually includes trailers for employees. Labor, mining equipment and supplies are available from Grand Junction as are many independent contractors.

HISTORY, PRODUCTION AND OWNERSHIP

Mining operations on Beaver Mesa have been carried on prior to World War I. All work prior to 1942 was for the production of vanadium. There has been no production of uranium or vanadium from the Rajah group of claims to date. Total production in the Beaver Mesa area through September, 1954 was 35,000 tons averaging 0.38 percent U_3O_8 and 1.5 percent V_2O_5.

The Lumsden No. 1 mine of the United States Vanadium Company is about 800 feet northeast.

The applicants own the standard (600 x 1500 ft.) unpatented mining claims Rajah 67 and 68 with the exception of prior locations, as shown on figure 2. The applicants' rights in these claims covers about 18 acres. In addition, they own the unpatented claims Rajah 61, 62 and 63 which they agreed to subordinate, during the field conference of March 30, 1955 (fig. 2).

The applicants are jointly interested as a partnership organized in the State of Colorado. They are:

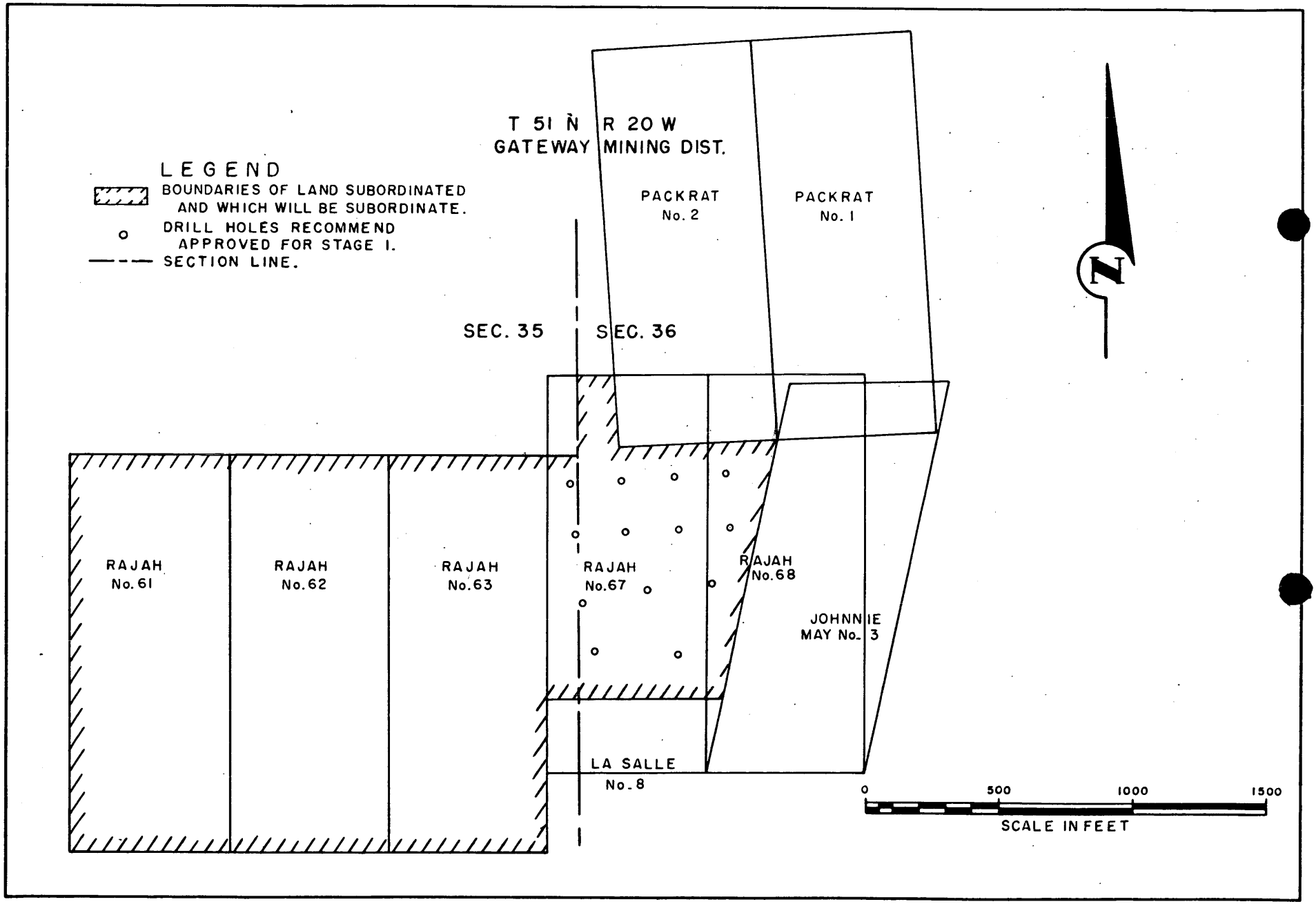


FIGURE 2-CLAIM MAP SHOWING PROPOSED DRILLING ON THE RAJAH CLAIMS, HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD & SIMPSON MINING CO., (URANIUM), MESA COUNTY, COLO. DMEA 3649

Name	Address
Arthur Hamilton	1410 1st Natl. Bank Bldg., Dallas, Texas
John W. Harris	918 Milan Bldg., San Antonio, Texas
W. D. McDavid	918 Milan Bldg., San Antonio, Texas
Otis Phillips, Jr.	1410 1st Natl. Bank Bldg., Dallas, Texas
Rex Phillips	918 Milan Bldg., San Antonio, Texas
Graham B. Ladd	918 Milan Bldg., San Antonio, Texas
Simpson Mining Company	Box 127, 304 Main St., Grand Junction, Colo.

Simpson Mining Company is a partnership organized in the State of Colorado and consists of the two brothers, Julian E. Simpson of 430 North 16th St., Grand Junction, and Alan M. Simpson of 415 Hall Avenue, Grand Junction.

The claims are recorded in the Mesa County courthouse at Grand Junction as follows:

Claim	Mining District	Date of Discovery	Date of Location	Date Recorded	Book	Page
Rajah 67	Gateway	11-8-52	11-8-52	12-30-52	576	345
Rajah 68	Gateway	11-8-52	11-8-52	12-18-52	576	346
Rajah 61	Gateway	11-8-52	11-8-52	12-17-52	576	343
Rajah 62	Gateway	11-8-52	11-8-52	12-17-52	576	495
Rajah 63	Gateway	11-8-52	11-8-52	12-17-52	576	496

The rights of the various partners is recorded with the claims as follows:

Partners	Percent of ownership
Simpson Mining Co.	25
W. D. McDavid	30
Arthur Hamilton	9
Otis Phillips, Jr.	9
John W. Harris	9
Rex Phillips	9
Kathleen P. or Graham B. Ladd	9
Total	100

There are no known liens or encumbrances against the property.

DESCRIPTION OF THE DEPOSITS

The uranium deposits of the Beaver Mesa area are found in the

upper part of the Salt Wash member of the Jurassic Morrison formation. The Salt Wash member is 280 to 340 feet thick and consists of interstratified sandstone and mudstone units. The important uranium deposits in the Beaver Mesa area are commonly localized in or near concentrations of carbonaceous material known as "trash pockets". In the vicinity of ore deposits the mudstone units are a gray-green color. Ore deposits in the Beaver Mesa area are of the unoxidized or partly oxidized uranium-vanadium type containing the minerals uraninite, coffinite, montroseite, lumsdenite and doloresite. The tabular ore deposits range greatly in size but average about 250 by 500 feet in area and contain 13,000 to 21,000 tons of sandstone averaging about 0.4 percent U_3O_8 and 1.5 percent V_2O_5, including high grade streaks and low grade areas. Smaller deposits averaging 200 to 300 tons of ore are also found in the area. The ore occurs in rolls and lenses in favorable sandstone units with definite east-west trends more or less defined by detailed studies of the Geological Survey in the area.

MINABLE ORE RESERVES

There is no data available on which to base an estimate of ore reserves.

PRESENT STATUS

Exploration and Development

There are no mine workings on the Rajah claims and no exploration work other than assessment work has been done to date by the applicants.

The Geological Survey has drilled holes nearby with favorable to semi-favorable results.

Mining and Milling and Other Facilities

There are no buildings or equipment on the property but the applicants are prepared to move in all necessary equipment and facilities.

PROJECT PROPOSALS, WITH COSTS

The applicant proposes a plug and core drilling program in two stages and expect to use at least two drills on a single shift basis. The proposed exploration would consist of 26 diamond drill holes totalling 10,694 feet which would be drilled in two stages of 13 holes. Each stage would be identical in the number of holes and footage and cost and would differ only in their intent.

Stage I would consist of 13 AX size holes on 200- to 300-foot centers to define areas most favorable for ore occurrence. The holes would range in depth from 339 to 456 feet and would total 5,347 feet of which 4,047 feet would be non-core or plug bit drilling and 1,300 feet would be drilled for core. Total cost of Stage I would be $20,372.07.

Stage II drilling exploration would be dependent upon the results of Stage I and would require prior approval of the Defense Minerals Exploration Administration. The selection of the locations for Stage II drilling would be made with the approval of the DMEA Field Team. While some of the holes would offset holes in mineralized ground drilled in Stage I, all of Stage II holes would be drilled in areas of favorable geology as determined by Stage I. Holes would be spaced 70 to 100 feet apart.

Stage II would consist of 13 AX-size holes totalling 5,347 feet, of which 4,047 feet would be non-core or plug bit drilling and 1,300 feet would be drilled for core. Total cost of Stage II would be $20,372.07.

The total exploration program submitted by the applicants would consist of 10,694 feet of AX size hole at an over all cost of $40,744.14. The applicants' unit cost would be $3.81 per foot of completed hole. Work would be completed within 6 months after the signing of a contract.

The representative of the applicants, J. E. Simpson of Simpson Mining Company, Grand Junction, agreed to the following revised two stage exploration program during a field conference with the writer and members of the Geological Survey. The only revisions to the applicants' proposal are a new location for the drill hole HR-1 and in costs.

Revised and Recommended Exploration Program

Stage I:

Thirteen size AX diamond drill holes with estimated depths of 339 to 456 feet and totalling 5,347 feet will be drilled on about 200- to 300-foot centers as shown on figure 2. These holes may differ from their estimated depths by 10 percent. All drill holes will be not less than 100 feet from the boundaries of claims not subordinated. Drill holes will go through favorable sandstone units and underlying gray-green mudstones and will penetrate into red mudstone or their equivalent criteria; all of the Salt Wash member of the Jurassic Morrison formation.

The applicants expect to employ at least two drill rigs on a single shift basis. Drilling of stage I holes would be completed within 3 months of the signing of an exploration contract. All work except engineering, geology and supervision would be by Independent contracts.

Stage II will consist of 13 additional diamond drill holes of AX size totalling 5,347 feet which will be drilled in the vicinity of favorable and, or, mineralized holes of Stage I drilling and in a pattern approved by the DMEA Field Team. It will be designed on the basis of information derived from Stage I drilling.

Provision should be made for approval of revisions in Stages I and II and any amendments to the contract without excessive delays. Geological Survey field personnel at Grand Junction and Beaver Mesa would be available within 24 hour notice.

All core should be labelled and retained in core boxes until disposition is approved by DMEA representatives.

The following cost estimate is based on a field conference with J. E. Simpson representing the applicants, the writer and members of the Geological Survey, and are reasonable costs for Beaver Mesa and comparable to other costs in the Beaver Mesa area. Copies of competitive bids requested of the applicant are appended at the end of the report.

Cost Estimate

Stage I

Estimated time of completion - 3 months

	Total Cost	Distribution: Plug Bit Drilling	Distribution: Core Drilling
(1) Independent contracts			
Bulldozer work to recondition existing access roads, construct new roads to 13 drill sites and prepare 13 drill sites at $100.00 per day; includes moving on and off job	$1,400.00	$ 700.00	$ 700.00
Plug bit (non-core) drilling 13 AX size holes for a maximum of 4,047 feet at $2.00 per foot	$8,094.00	$8,094.00	---
Core drilling 13 size AX holes for a maximum of 1300 feet as follows:			
139 ft. between depths of 200-300 ft. at $2.00 per ft.		---	$ 382.25
875 ft. between depths of 300-400 ft. at $3.00 per ft.		---	$2,625.00
286 ft. between depths of 400-500 ft. at $3.50 per ft.		---	$1,001.00
1,300 ft. total for	$13,502.25	$8,794.00	$4,708.25
Standby time for drill contractors to log holes, etc., 9-3/4 hours at $12.00 per hour		---	$ 117.00
Total Independent Contracts	$13,619.25	$8,794.00	$4,825.25
(2) Labor and Supervision			
1 - full time engineer-geologist-supervisor; three months at $500.00 per month	$ 1,500.00	$ 600.00	$ 900.00
1 - sampler and field assistant full time; three months at $350.00 per month	$ 1,050.00	$ 420.00	$ 630.00
1 - draftsman; three days at $24.00 per day	$ 72.00	$ 28.80	$ 43.20
1 - stenographer; 6 hours at $2.00 per hour	$ 12.00	$ 4.80	$ 7.20
Total Labor and Supervision	$ 2,634.00	$ 1,053.60	$1,580.40

	Total Cost	Distribution: Plug Bit Drilling	Distribution: Core Drilling
(3) Operating materials and supplies			
10 - core boxes for one months core retention, engineering supplies, drill log forms, etc.	$ 75.00	---	$ 75.00
Total Operating materials and supplies	$ 75.00	---	$ 75.00
(4) Operating equipment			
Trailer office at $25.00 per month	$ 75.00	$ 30.00	$ 45.00
Geiger counter hole probing unit at $100.00 per month	$ 300.00	---	$ 300.00
Total Operating equipment	$ 375.00	$ 30.00	$ 345.00
(5)(6) No initial rehabilitation or repairs, or new buildings and equipment	none	none	none
(7) Miscellaneous			
Accounting	none	none	none
Analytical work; 65 samples to be analyzed for U_3O_8, V_2O_5, $CaCO_3$ at $6.00 each. (Not included in drilling costs).	$ 390.00	$----	---
Compensation insurance, payroll taxes (5% of $2,634.00)	$ 131.70	$ 52.68	$ 79.02
Total Miscellaneous	$ 521.70	$ 52.68	$ 79.02
Sub total of costs	$17,224.95		
Contingencies (5% of $17,224.95)	861.25	$ 344.50	$ 516.75
Stage I drilling costs	$17,696.20	$10,274.78	$ 7,421.42
Estimated cost of 50 samples assayed for U_3O_8, V_2O_5 and $CaCO_3$	$ 390.00		

Total estimated cost of Stage I	$18,086.20
Estimated over all cost per foot of plug bit drilled hole $\frac{(\$10,274.78)}{(4,047\ ft)}$	$ 2.54-
Estimated over all cost per foot of core drilled hole $\frac{(\$7,421.42)}{(1,300\ ft)}$	$ 5.71-
Estimated over all cost per foot of completed hole, including chemical analyses $\frac{(\$18,086.20)}{(5,347\ ft.)}$	$ 3.38+

Stage II

Estimated time of completion - 3 months

The same number of holes would be drilled for the same footages, totaling 5,347 feet. Costs are distributed exactly the same as itemized for Stage I. Total cost is exactly the same, or $18,086.20.

SUMMARY OF COST

Stage I

Thirteen size AX exploratory drill holes totaling 5,347 feet at a total over all cost of $18,086.20. This will include 4,047 feet of plug bit drilled hole at a cost of $2.54- per foot; 1,300 feet of AX core drilling at $5.71 per foot; and the analysis of 65 samples for U_3O_8, V_2O_5 and $CaCO_3$ at a cost of $390.00.

Stage II is identical with Stage I and at the same over all cost of $18,086.20, the only difference being in the location of the various holes. The layout of Stage II is dependent upon the results of Stage I drilling and requires prior approval of the DMEA Field Team.

Total estimated cost of the revised exploration program	$36,172.40
Government participation of 75 percent	$27,129.30

Time of completion of Stages I and II is 6 months.

PROPOSED FINANCING

The applicants are prepared to furnish their share of the cost of the proposed exploration in cash and equipment.

CONCLUSIONS

Uranium and vanadium occur in deposits of various sizes. Those of the neighboring "Lumsden type" are tabular and average 250 by 500 feet in area, containing 13,000 to 21,000 tons each. Smaller ore bodies averaging 200 to 300 tons are also found in the area. Average grade of the ore at Beaver Mesa is 0.38 percent U_3O_8 and 1.5 percent V_2O_5.

Geologically, there is a good chance of making a significant discovery of uranium and vanadium in a "lumsden" type ore body or in the aforementioned smaller type ore bodies.

The cost of placing a mine in operation under conditions existing on the applicants' Beaver Mesa claims is estimated as follows; based on mining ore bodies of about 10,000 tons size.

Applicants' share of estimated costs of exploration		$ 9,043.10
Camp construction		6,000.00
Machinery		10,000.00
Hoist, headframe and ore-bin		14,000.00
500-foot shaft at $115.00 per foot		57,500.00
Total initial outlay		$96,543.10
Maximum initial production bonus, less DMEA royalty		$33,250.00
Balance to be paid out of other ore returns		$63,293.10
Estimated average return per ton of ore, without initial production bonus.		$ 44.10
DMEA Royalty	$ 2.20	
Mining Charge	$22.00	
		$ 24.20
Return after royalty and mining charges, per ton.		$ 19.90

Estimated production to return operators their initial outlay, $\frac{\$63,293.10}{\$19.90}$ = 3,181 tons

Ore production required to repay Government's share of exploration, $\frac{\$27,129.30}{\$2.20}$ = 12,332 tons

Enough production to return the applicants' initial cost is a reasonable possibility. The finding of a "Lumsden type" ore body would repay the Government's share of the exploration program.

Simpson Mining Company, representative and partner in the exploration enterprise, is competent to carry on the work satisfactorily.

RECOMMENDATIONS

It is recommended that a short form contract, to be completed in 6 months, be approved to diamond drill 26 holes, in two equal stages, for a total footage of 10,694 feet and an over all cost of $36,172.40. Unit cost per foot of completed hole would be $3.382+. Government participation of 75 percent would be $27,129.30. Drill holes will not be less than 100 feet from property lines. The thirteen holes in Stage I are to be drilled at locations designated on figure 2 and also in the geologic report. All holes should be bottomed in red mudstone underlying the ore bearing sandstone horizons occurring in the upper part of the Salt Wash member of the Jurassic Morrison formation. The depths of holes (339 to 456 feet) are an estimate based on nearby drill hole data of the Geological Survey. Actual drilling may differ considerably and provision should be made to transfer drilling footage from Stage II to Stage I, if necessary.

Stage II will also consist of 13 holes and will require prior approval of the DMEA Field Team. The number and locations of the holes will be determined from the results of Stage I.

The bottom 100 feet of holes should be cored for correlation and the determination of favorable and mineralized zones.

All core should be labelled and contain depth markers in 5-foot intervals, placed in core boxes and retained pending examination and disposition by DMEA representatives.

Mineralized portions of the core should be split and one half sampled in lengths of not more than one foot by the applicant. All samples should be analyzed for U_3O_8, V_2O_5 and $CaCO_3$ and certified copies included in monthly reports. The other half should be retained for Government disposition. Provision is made for 65 samples.

Certified copies of drill logs patterned after standard forms used by the Geological Survey in the area should accompany monthly reports.

Uncompleted holes should not be paid for.

The Rajah claims Nos. 61, 62 and 63 should be included in land subject to subordination.

/mh

MINERALS ENGINEERING COMPANY
P O BOX 957
GRAND JUNCTION, COLORADO

Minerals Administration
RECEIVED

December 20, 1954

Inside

Simpson Mining Company
P. O. Box 127
304 Main Street
Grand Junction, Colorado

Attention: Mr. J. E. Simpson

Gentlemen:

We respectfully submit herewith quotations for drilling a minimum of 10,000 feet on Beaver Mesa as you have described in your letter dated December 15, 1954.

Depth	Price per Foot	
	Non-Core	Core
0 - 200 Ft.	$ 2.00	$ 2.25
200 - 300 "	2.25	2.50
300 - 400 "	2.75	3.25
400 - 500 "	3.25	4.25

We also have a standby time charge of $12.00 per hour.

Thank you for asking us to submit this bid.

Very truly yours,

MINERALS ENGINEERING COMPANY

Howard S. Perry

Howard S. Perry
Drill Superintendent

HSP:ro

5-16-55

JOHNSON & YOUVAN

DIAMOND CORE DRILLING

NATURITA, COLORADO

December 18, 1954

RECEIVED

Included

Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Gentlemen:

In response to your telephone request of December 15, we are pleased to quote the following prices on your proposed drilling program to be conducted in the Lumsdon area:

Non-Core Drilling		8,000 feet	$2.00 per foot
Core Drilling:	0-100 feet		2.25 " "
	100-200 "		2.50 " "
	200-300 "	278 "	2.75 " "
	300-400 "	715 "	3.00 " "
	400-500 "	572 "	3.50 " "
Standby Time			12.00 " "

We appreciate the opportunity of quoting on this program and shall look forward to hearing further from you.

Very truly yours,

JOHNSON & YOUVAN

Jack Youvan

Jack Youvan
Partner

dab

JY:dab

5-16-55

IN REPLY REFER TO:

DMEA
Date Rec'd.

APR 28 1955

BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

April 27, 1955

TRANSMITTED
MAY 9 1955

Memorandum

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3649 (Uranium), Hamilton, Harris, McDavid, Phillips, Ladd, and Simpson Mining Company, Rajah No. 67 and No. 68 claims, Beaver Mesa district, Mesa County, Colorado

Enclosed are 10 copies of a geologic report by N. W. Bivins, U. S. Geological Survey, covering an examination of the subject property.

The claims are on Beaver Mesa in an area classified by the U. S. Geological Survey as favorable for large uranium deposits of the Lumsden type (13,000 to 21,000 tons of 0.30 percent to 0.40 percent U_3O_8). Private drilling northeast of the Rajah No. 67 and 68 claims indicates the presence of an ore body trending toward those claims.

Bivins recommends a two-stage program of exploration consisting of 13 first stage holes on 200- to 250-foot centers as shown on figure 3 accompanying his report, and 13 second stage holes offsetting favorable stage 1 holes. First and second stage holes will average about 410 feet in depth.

I concur with the above recommendations and further recommend that second stage holes be drilled no closer than 100 to 150 feet from favorable first stage holes. Since the Rajah Nos. 61, 62, and 63 will benefit by the proposed exploration, they should be included in the ground to be subordinated by the applicant.

Nine extra copies of the figures included in the report by Bivins are enclosed also.

E. N. Harshman

E. N. Harshman
Member, Field Team

Reviewed by
DMEA OPERATING COMMITTEE
5-16-55
(date)

Enclosures (19)

ENHarshman:arh

MINERAL DEPOSITS
DMEA
RECEIVED
APR 25 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
COLORADO PLATEAU DISTRICT
P. O. BOX 360
GRAND JUNCTION, COLORADO

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 12 1955

April 15, 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: W. P. Williams

Subject: DMEA 3649, Hamilton, Harris, McDavid, Phillips, Ladd, and Simpson Mining Company, Rajah No. 67 and No. 68 claims, Beaver Mesa district, Mesa County, Colorado

Enclosed are 11 copies of a geologic report by N. W. Bivens covering the property, 9 extra copies of the maps, and the brochure.

Geologic information from adjacent properties indicate that the Rajah No. 67 and No. 68 claims are underlain by ground favorable for large (13,000 to 21,000 tons) uranium deposits. Bivens, therefore, recommends that DMEA aid in exploring the claims.

I concur with Bivens' recommendation.

Bivens points out that exploration of Rajah No. 67 and No. 68 may materially benefit three other claims (Rajah No. 61, 62 and 63) owned by the applicant company. This problem was discussed with Mr. Simpson and he agreed to subordinate the three additional claims.

The application was brought to the attention of the Grand Junction Atomic Energy Commission office, and the Commission was asked for it's aid in evaluating the claims.

WPWilliams

W. P. Williams
Geologist

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
5-16-55
(date)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 12 1955

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3649, Hamilton, Harris, McDavid, Phillips, Ladd and Simpson Mining Company, Rajah No. 67 and No. 68 group of claims Beaver Mesa district, Mesa County, Colo.

Uranium

Geologic Report

by

N. W. Bivens
U. S. Geological Survey

April 15, 1955

Reviewed by
DMEA OPERATING COMMITTEE
5-16-55
(date)

DMEA 3649

INTRODUCTION AND SUMMARY

Hamilton, Harris, McDavid, Phillips, Ladd and Simpson Mining Company, P. O. Box 127, 304 Main St., Grand Junction, Colo., has applied (DMEA Docket No. 3649) to the Defense Minerals Exploration Administration for aid to conduct exploration for uranium ore on the Rajah No. 67 and No. 68 group of claims. These claims are in secs. 35 and 36, T. 51 N., R. 20 W., New Mexico Principal Meridian, Mesa County, Colo., (figs. 1 and 2). The applicant proposes to do 10,694 feet of drilling at an estimated cost of $40,735.90.

The property was examined March 30, 1955, by C. M. Harrer, U. S. Bureau of Mines, T. E. Mullens, L. J. Eicher, and N. W. Bivens, U. S. Geological Survey, and J. E. Simpson, representative for the applicant.

The applicant's claims are located on the central part of Beaver Mesa in the western part of the Gateway Mining district (fig. 2). The claims are accessible by about 16 miles of improved road that connects with Colorado Highway 141 half a mile south of Gateway, Colo.

The drilling operations will be supervised by representatives of Hamilton, Harris, et al. They appear capable to perform the supervisory duties.

GEOLOGY AND ORE DEPOSITS

The rocks exposed in the Beaver Mesa area are Mesozoic sediments that consist, from oldest to youngest, of the Upper Jurassic Morrison formation (600-690 feet thick), the Lower Cretaceous Burro Canyon formation (210 feet thick), and the Lower and Upper Cretaceous Dakota sandstone (absent to 100 feet thick). The Morrison formation is divided into the Salt Wash member (280-340 feet thick), composed dominantly of interstratified units of sandstone and mudstone, and the overlying Brushy Basin member (340-360 feet thick) composed primarily of varigated red and gray shales and clays and occassional interbedded conglomeratic sandstone lenses. Overlying the Morrison formation is the Burro Canyon formation, a conglomeratic sandstone that contains lenses of gray and green shales. The Dakota sandstone, which overlies the Burro Canyon formation, is a resistant conglomeratic sandstone containing thin lenses of gray shale. These formations dip at low angles (5° maximum) in a northeasterly direction.

All of the significant uranium-bearing deposits found in the Beaver Mesa area are in the uppermost sandstone lens of the Salt Wash member of the Morrison formation. This lens is commonly referred to as the "ore-bearing sandstone" and ranges in thickness from 15 to 80 feet. The ore-bearing sandstone is commonly lenticular and irregularly bedded. The sandstone lenses contain thin discontinuous

mudstone lenses, thin zones of mudstone-pebble conglomerate, and abundant fragments and masses of carbonaceous material. Uranium-bearing deposits are commonly localized in or near these "trash pockets". In the vicinity of the deposits the mudstone in contact with the sandstone is a gray-green color.

The significant uranium-bearing deposits in the Beaver Mesa area are the unoxidized (or only partially oxidized) uranium-vanadium type, commonly called "black ores". The principal ore minerals in these deposits are the uranium-bearing minerals uraninite and coffinite and the vanadium-bearing minerals montroseite, lumsdenite, and doloresite.

In the vicinity of the Lumsden group of mines (fig. 3) a favorable area, roughly 2,000 to 2,500 feet wide and 3,000 to 4,000 feet long, contains at least 3 ore deposits ranging in width from 200 to 300 feet and in length from 400 to 700 feet. The average size of the ore deposits is 250 by 500 feet. Private drilling information indicates that these deposits contain from 13,000 to 21,000 tons each of material averaging about 0.40 percent U_3O_8 and 1.5 percent V_2O_5. The deposits are roughly tabular and have an average thickness of about 2.5 feet and a maximum thickness of about 15 feet. The deposits are commonly connected by thin seams of high-grade material. Geologic information indicates that the area north of the line of favorableness on figure 3 is favorable for the occurrence of Lumsden type deposits.

There is no mineralized material showing on the subject claims. Production figures from nearby mines are presented below. The following data includes all known production prior to January 1, 1955

Table 1

Mine	Tons	% U_3O_8	% V_2O_5
Lumsden No. 1	1,500.67	0.31	1.88
Lumsden No. 2	6,159.05	0.40	1.48
Pack Rat	1,987.83	0.25	1.09

There is no known production from the Lost Dutchman mine, although the mine is heading toward a substantial ore body.

The applicant states that recent private drilling on the south half of the Pack Rat No. 1 claim indicate that an ore body is trending to the southeast in the direction of the Rajah No. 67 and No. 68 group. U. S. Geological Survey geologists concur with the above statement by the applicant and consider the above mentioned ore body to be an extension of the Lumsden No. 1 deposit.

APPLICANT'S PROPOSAL

The applicant proposed to do 10,694 feet of drilling at a total cost of $27,238.50. The drilling was planned in two stages. The first stage (13 holes, 5,347 feet) was to be drilled on 200 to 300 foot centers to define the areas most favorable for the occurrence

of ore deposits. The second stage was to consist of 13 holes (5,347 feet) to be drilled in the areas defined as most favorable by Stage 1 drilling. These Stage II holes were to be spaced from 70 to 150 feet from existing holes. Mineralized areas were to be tested by holes drilled on 70 to 100 foot intervals.

Geologic information indicates that it is quite possible that any ore found on the Rajah No. 67 and No. 68 group will extend into the Rajah No. 61, No. 62 and No. 63 group, also owned by the applicant. The fact that the latter group of claims should be subordinated was accepted by the applicant.

It was also pointed out to Mr. Simpson that one of the proposed Stage 1 drill holes (HR-1) was less than 100 feet from an adjoining claim not owned by the applicant. The Government representatives and the applicant agreed on a new position for the hole in question.

CONCLUSIONS AND RECOMMENDATION

Geologic information indicates that the ground underlain by the subject claims is favorable for the occurrence of significant uranium-bearing deposits (fig. 3). The applicant agreed to subordinate the Rajah No. 61, No. 62 and No. 63 group and to change the position of hole HR-1 so that it would not be within 100 feet of any adjacent claim not owned by Mr. Simpson and still be in a position acceptable to the Government. Proposed Stage 1 drill hole locations acceptable

to both the Government representatives and the applicant are shown on figure 3.

When the above conditions are satisfied, it is recommended that the applicant's proposal be accepted. There will be 13 Stage 1 holes located as shown on figure 3. The total Stage 1 footage will be 5,347 feet, cost of $12,102.25. Stage 2 drilling will consist of 13 holes located with the approval of the DMEA field team. Total Stage 2 footage will be 5,347 feet.

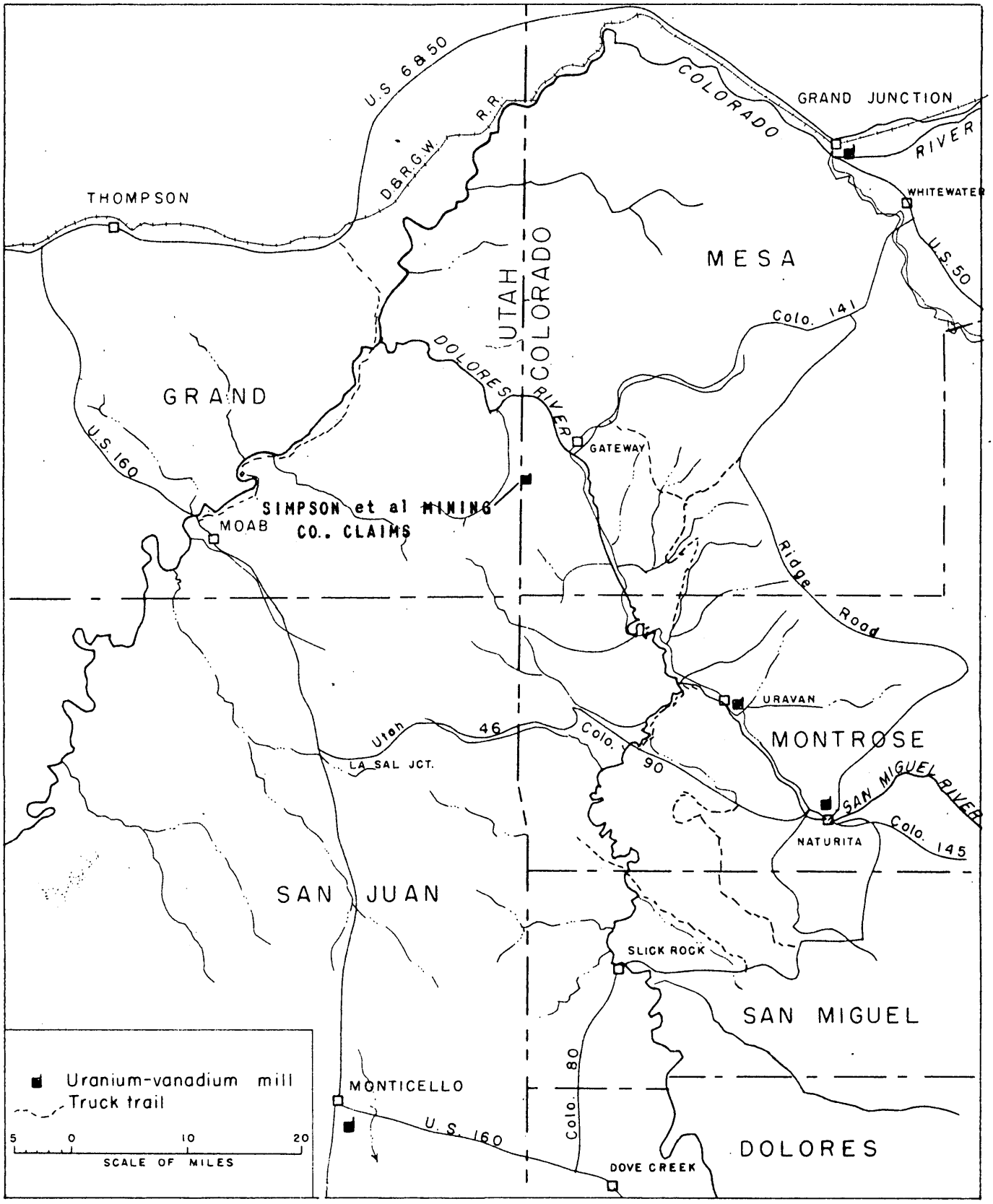


Figure 1. INDEX MAP OF PART OF COLORADO PLATEAU SHOWING LOCATION OF THE RAJAH GROUP OF CLAIMS, SIMPSON et al MINING CO., BEAVER MESA, MESA COUNTY, COLORADO

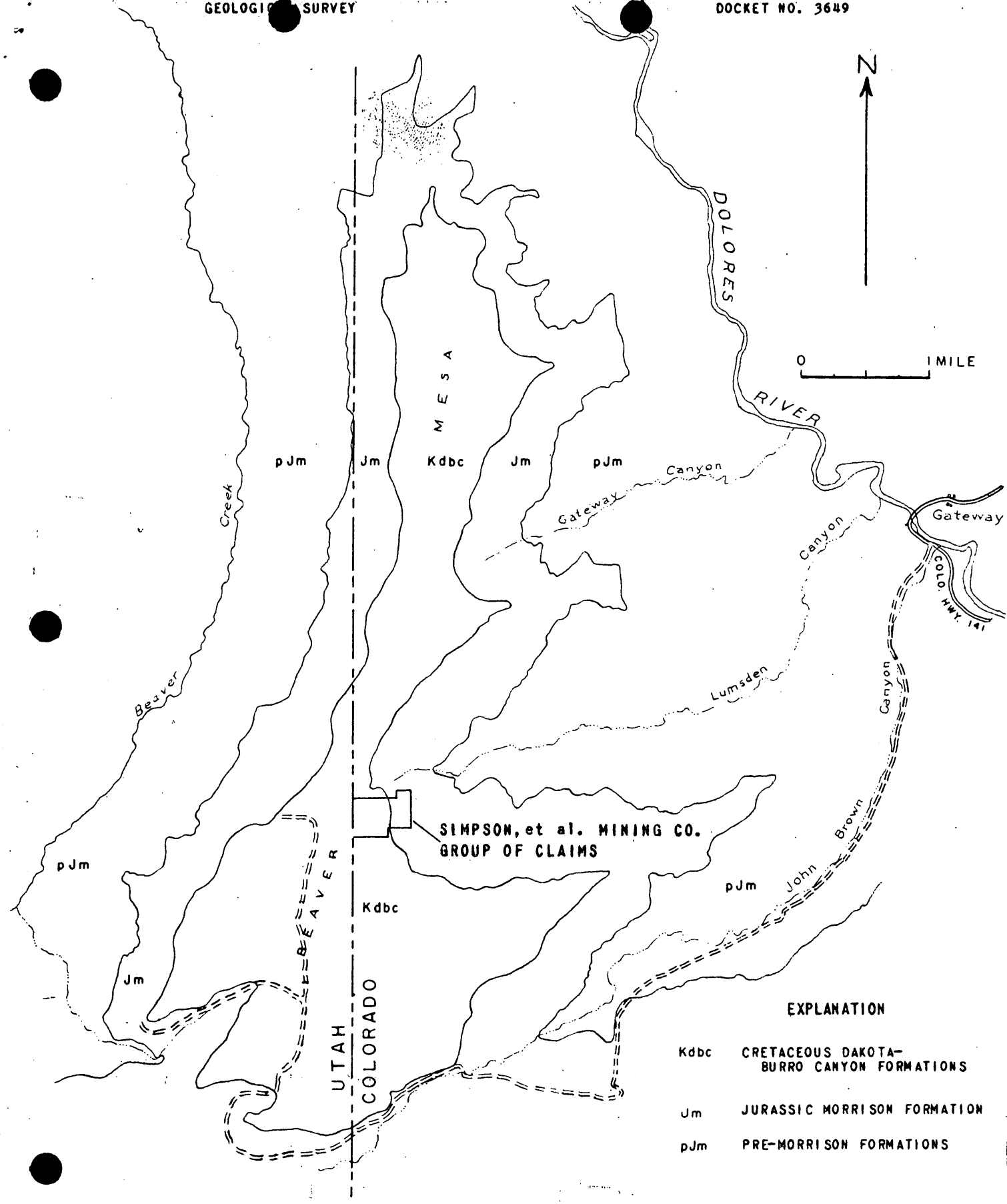
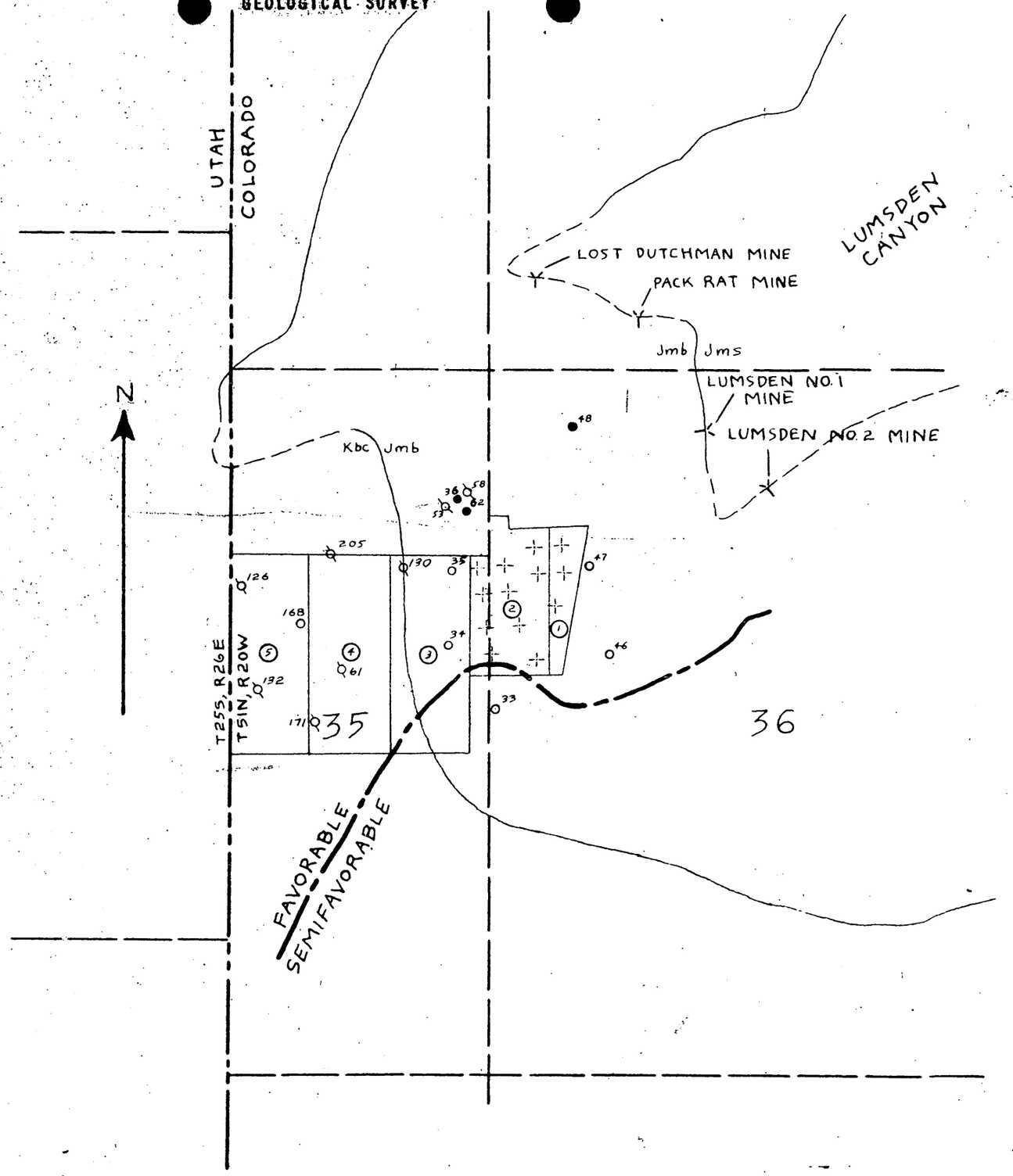


Figure 2. INDEX MAP SHOWING LOCATION OF THE RAJAH 61-63 AND RAJAH 67,68 GROUPS OF CLAIMS SIMPSON, et al. MINING CO., BEAVER MESA, MESA COUNTY, COLORADO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 3649



CLAIM INDEX

1. RAJAH NO. 68
2. RAJAH NO. 67
3. RAJAH NO. 63
4. RAJAH NO. 62
5. RAJAH NO. 61

EXPLANATION

Kbc / Jmb — FORMATION CONTACT BETWEEN CRETACEOUS BURRO CANYON FORMATION (Kbc) AND BRUSHY BASIN MEMBER OF THE JURASSIC MORRISON FORMATION (Jmb): DASHED WHERE CONCEALED

Jmb / Jms — FORMATION CONTACT BETWEEN THE BRUSHY BASIN (Jmb) AND SALT WASH (Jms) MEMBERS OF THE JURASSIC MORRISON FORMATION

MINE

④ — CLAIM BOUNDARY, LOCATED APPROXIMATELY, AND INDEX NUMBER

36 — LAND SECTION NUMBER, LAND LINES LOCATED APPROXIMATELY

DIAMOND-DRILL HOLES, U.S. GEOLOGICAL SURVEY

o47 — BARREN (NOS. 33,34 SEMIFAVORABLE ALL OTHERS FAVORABLE)

58 — WEAKLY MINERALIZED

•48 — ORE-BEARING

LOCATION OF PROPOSED HOLE, STAGE I

1000 0 2000 FEET

Figure 3. MAP SHOWING RAJAH CLAIMS, AND PROPOSED STAGE I HOLE LOCATIONS, SIMPSON, et al MINING COMPANY, MESA COUNTY, COLORADO

Draft
FMurphy:am
5-17-55

EXPLORATION PROJECT CONTRACT

HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD

AND SIMPSON MINING COMPANY

DOCKET NO. DMEA-3649

ANNEX I

The land referred to in Article 2 of the contract form consists of five (5) unpatented lode mining claims, which are recorded in the office of the County Recorder, Mesa County, Colorado, as follows:

Claim	Book No.	Page No.
Rajah No. 61	576	343
" " 62	576	495
" " 63	576	496
" " 67	576	345
" " 68	576	346

These claims are in secs. 35 and 36, T. 51 N., R. 20 W., New Mexico Principal Meridian, and are shown on the map entitled "Figure 3. Map Showing Rajah Claims, and proposed Stage I Hole Locations, ...," attached hereto and made a part hereof

Draft
FMurphy:am
5-17-55

EXPLORATION PROJECT CONTRACT

HAMILTON, HARRIS, McDAVID, PHILLIPS, LADD

AND SIMPSON MINING COMPANY

DOCKET NO. DMEA-3649

EXHIBIT "A"

DESCRIPTION OF THE WORK

The object of this project to explore the uppermost sandstone lens of the Salt Wash member of the Morrison formation for uranium ore deposits. To penetrate this member will require drill holes ranging from 330 to 460 feet in depth.

The work shall be performed in two successive stages. The Operator shall perform all the work under Stage I and shall perform so much of Stage II as is approved in advance in writing by the Government based upon the results of the completed work under Stage I.

STAGE I

Stage I shall consist of bulldozing work to recondition existing access roads, construct new roads to 13 drill sites, and prepare these 13 drill sites. The approximate location of the drill sites are indicated on map entitled Figure 3.

From the indicated sites not in excess of 13 holes shall be drilled in this Stage I. The holes shall not be closer than 200 feet to any other drill hole or closer than 100 feet to the outer boundaries of the claims mentioned in Annex I of this contract. Not in excess of 65 chemical analyses for the U_3O_8, V_2O_5, and $CaCO_3$ content of samples obtained during Stage I work shall be made.

STAGE II

Stage II, shall consist of bulldozing access roads and preparing 13 drill sites in the vicinity of favorable and/or, mineralized holes drilled during Stage I.

Not in excess of 13 holes shall be drilled in this Stage II. The holes shall not be closer than 70 feet to any other hole or closer than 100 feet to the outer boundaries of the claims mentioned in Annex I of this contract.

Not in excess of 65 chemical analyses for the U_3O_8, V_2O_5, and $CaCO_3$ content of samples obtained during Stage I work shall be made.

GENERAL PROVISIONS

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

A supervising engineer or geologist shall be employed full time while work under this contract is being performed.

Mineralized portions of the core shall be split, the operator using one-half for assay purposes. The other half shall be stored for Government use, with the rest of the core in boxes and properly labelled as to hole number, with markers in the core sections indicating the depths represented. If feasable, the length of core used for an individual sample should not exceed 12 inches.

The holes in both Stage I and Stage II shall be minimum Ax size at their bottom, and no uncompleted hole shall be paid for.

All holes shall be drilled non-core to the inferred Brushy Basin - Salt Wash contact. On entering the Salt Wash member the holes

shall be cored thru the uppermost sandstone lens (which ranges from 15 to 80 feet in depth) and the lower gray-green mudstones. The holes shall bottom when they have penetrated into the underlying red mudstones or their equivalent criteria which indicate the lower horizon of the upper ore-bearing lens of the Salt Wash member of the Morrison formation.

If the footage allowed under Stage I of this contract is not sufficient to complete the thirteen (13) holes authorized for this stage, then with previous written Government approval, a part of the footage authorized for Stage II may be used to satisfactorily complete the Stage I drilling.

In Stage II no hole shall be started unless there is sufficient footage remaining in the contract to complete the hole thru the upper sandstone lens of the Salt Wash member of the Morrison formation.

FIXED UNIT COSTS

STAGE I

65 chemical analyses for U_3O_8, V_2O_5, and $CaCO_3$ @ $6/ea.	$390.00	
Incidental allowance 2/ for each foot of drilling completed .....5,614 feet @ $0.60/ft.	3,368.40	
		$3,758.40

STAGE II

(Same as above)	$3,758.40

SUMMARY

Estimated Total Costs, Stage I	$17,998.90	
Estimated Total Costs, Stage II	17,998.90	
Estimated Total Cost of Project		$35,997.80
Government Participation at 75 percent		$26,998.35

2/ The "incidental allowance" includes all costs of the project whatsoever that are not included in the estimates for bulldozing, drilling, stand-by time, and the fixed unit cost for analyses, and is in lieu of Categories (2) through (7) of actual costs under Article 6 (a) of the contract. It includes such items as supervision, engineering, equipment, materials and supplies, compensation insurance, etc.

4/27/55 gla

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

224 New Customhouse
Denver 2, Colorado

April 21, 1955

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3649 (Uranium), Hamilton, Harris, McDavid Phillips, Ladd, and Simpson Mining Company, Rajah group of claims, Mesa County, Colorado

Enclosed are two photostat copies of a formal statement signed by Mr. Julian E. Simpson authorizing the inclusion of the Rajah Nos. 61, 62 and 63 claims in the land to be subordinated under the subject DMEA docket.

W. M. Traver

Enclosures

W. M. Traver

App[illegible]ation For DMEA Project On R[illegible]h No. 67 and No. 68 Group
By
Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company
P. O. Box 127, 304 Main Street, Grand Junction, Colorado

Admisistrator
Defense Minerals Exploration Administration
Department of the Interior
Interior Building
Washington 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 25 1955

AMENDMENT TO DOCKET NO. DMEA- 3649
Rajah No. 67 and 68 claims, Mesa County, Colo.

We the undersigned hereby agree to include and subordinate Rajah No. 61, Rajah No. 62, and Rajah No. 63 in the above mentioned DMEA application.

Applicants', Property Rights

(a) Legal Description-

The land included in this amendment to application consists of three unpatented mining claims known as Rajah No. 61, Rajah No. 62, and Rajah No. 63. These claims are located in section 35, T51N, R20W, New Mexico Principal Meridian, on Beaver Mesa in the Gateway Mining District, in Mesa County, Colo.

(b) Name of Property

The property will be referred to in this amended application and in future correspondence as the Rajah No. 67 and No. 68 Group.

(c) Interest in Land

The applicants are the owners of Rajah No. 61, Rajah No. 62, and Rahah No. 63.

(d) Omitted

(e) Liens or Encumbrances

There are no liens or encumbrances against the property.

(f) Record of Title

Rajah No. 61, 62, and 63, were located by the applicants in November, 1952, to wit:

Location Certificate For	Date of Location	Date of Recording	Book	Page
Rajah No. 61	11-8-52	12-30-52	576	343
Rajah No. 62	11-8-52	1- 5-53	576	495
Rajah No. 63	11-8-52	1-5- 53	576	496

An affidavit of annual labor was filed for Rajah Nos. 61, 62, and 63 on June 29, 1954, and recorded in Book 609 at Page 227.

Dated April, 19, 1955.

Hamilton, Harris, McDavid, Phillips, Ladd and Simpson Mining Company
By Julian E. Simpson
~~Julian E. Simpson~~

3/21/55 gla

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

224 New Customhouse
Denver 2, Colorado

March 16, 1955

Mr. J. E. Simpson
Simpson Mining Company
P. O. Box 127
Grand Junction, Colorado

Re: Docket DMEA-3649

Dear Mr. Simpson:

Our field office advises that an examination is impractical at the present time due to weather conditions in the area.

As soon as your claims have dried out sufficiently to enable a thorough field examination to be made, please contact W. P. Williams, P. O. Box 360, Grand Junction, Colorado, and the required examination will be scheduled.

Very truly yours,

W. M. TRAVER

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

RDB:pw

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

3/14/55 gh

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

MAR 14 1955

224 New Customhouse
Denver 2, Colorado

March 10, 1955

Memorandum

To: J. F. Shaw
W. P. Williams

From: DMEA Field Team, Region III

Subject: DMEA Docket 3649 (Uranium), Simpson Mining Company, et al., Rajah Nos. 67 and 68 claims, Gateway Mining District, Mesa County, Colorado

The question of having the applicant subordinate additional ground controlled by Simpson Mining Company in the vicinity of the Rajah Nos. 67 and 68 claims was referred to the Washington DMEA office by our memorandum of February 25, 1955 transmitting copies of memorandum from W. P. Williams to E. N. Harshman dated February 23, 1955.

Enclosed is a copy of the answering letter from the Chairman DMEA Operating Committee dated March 3, 1955. Based on this letter please schedule a formal field examination of the property at which time the applicant's representative should be requested to have additional adjacent claims subordinated if a contract is warranted and the additional land will be of benefit to the contract.

W. M. TRAVER,
W. M. Traver

RDB:sr

Encl.

E. N. Harshman
E. N. Harshman

cc Subject
Sec. to Op. Comm. (2)
E. N. Harshman w/enclosure
Chron

Surname 700

Murphy
Selfridge
Kilsgaard
Matheson

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

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

MAR 3 - 1955

Re: Docket No. DMEA-3649 (Uranium)
Hamilton et al, & Simpson Mining Co.,
Rajah Nos. 67 & 68 claims
Mesa County, Colorado

Dear Mr. Traver:

We refer to your memorandum, dated February 25, with the enclosure from Mr. W. P. Williams, regarding the last paragraph of our field referral letter, dated February 7, 1955, pertaining to the subject application.

The Applicants were advised by a letter, dated February 7, copies of which were sent to your office, that the Regional Office would contact them if additional information was required.

The Washington Office did not deem it advisable to request the addition of more land to the subject application until the Field Team indicated that they would recommend a project in the area.

In view of Mr. Williams' memorandum, we suggest that the Field Team complete the investigation requested. Then if you believe a project is warranted and that adjacent land controlled by the Applicants would also be benefited by the proposed work, you should advise the Applicants that such land must be subordinated to protect the Government's interest in the event a contract is executed.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Member, Bureau of Mines

E. L. Newcomb
Member, Geological Survey

FMurphy:am
3-2-55

cc to: Admr. Reading File
Operating Committee
Docket

Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Mr. Murphy
Code 700

R.C.S.

2/28/55 gla

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

224 New Customhouse
Denver 2, Colorado

February 25, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: DMEA Docket 3649 (Uranium), Simpson Mining Co., et al., Rajah Nos. 67 and 68 Claims, Gateway Mining District, Mesa County, Colorado

Enclosed is a copy of a memorandum dated February 23, 1955 from W.P. Williams concerning the land included in the subject application.

We recommend that a letter be written to the applicant from the Washington office requesting that their application be revised to include other land controlled by them in the immediate vicinity of the Rajah Nos. 67 and 68 claims. In the meantime field examination will be deferred pending action by the Washington office or advice to us as to how we should proceed.

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosure

COPY

UNITED STATES
Department of the Interior
Geological Survey

Colorado Plateau District
P. O. Box 360
Grand Junction, Colorado

February 23, 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: W. P. Williams

Subject: Simpson Mining Company, et al, Rajah Nos. 67 and 68 claims, Gateway Mining District, Mesa County, Colo.

We have just received copies of correspondence concerning the above-referenced application. In a letter dated February 7, 1955, to Mr. Traver, Executive Officer, from George C. Selfridge, Mr. Selfridge states, "Total area covered by the two claims is actually less than one full claim. Moreover, there does not seem to be any additional land available to the applicant. That question should be investigated." Consultation with our project geologists in the Gateway District and examination of claim maps in our files shows that the Simpson Mining Company, et al., not only have at least three claims immediately adjacent to Rajah Nos. 67 and 68, but also own approximately 25 more claims in the immediate vicinity of the Rajah Nos. 67 and 68.

It is my understanding that more area should be subordinated by the applicant. If such is the case, this application is not ready for field examination and the applicant should be advised that additional ground should be described in the application.

W.P.Williams
Geologist

WPW/mlr
cc: W. M. Traver
Geo. C. Selfridge

2/25/55 gla

3649

224 New Customhouse
Denver 2, Colorado

February 11, 1955

Memorandum

To: J. F. Shaw
W. P. Williams

From: DMEA Docket 3649 (Uranium), Hamilton, McDavid, Phillips, Ladd, and Simipson Mining Company, Rajah No. 67 and 68 claims, Gateway Mining District, Mesa County, Colorado

A complete copy of the subject application is herewith transmitted to John Shaw. Copy has been forwarded to W. P. Williams by E. N. Harshman. Copies of a letter from Chairman, DMEA Operating Committee with enclosed memoranda from John E. Crawford and E. L. Newcomb, Uranium Commodity Committee members, are also forwarded to John Shaw and W. P. Williams.

A field examination of the property and the usual report are required. As in the past, please contact the Atomic Energy Commission to obtain the benefit of knowledge they may have concerning the possibilities of ore deposits on the applicant's property.

The land under consideration consists of the Rajah claims Nos. 68 and 68 located in Sections 35 and 36, T-51-N, R-20-W, on Beaver Mountain in the Gateway Mining District, Mesa County, Colorado.

W. M. TRAVER

W. M. Traver

E. N. Harshman

E. N. Harshman
Field Team, Region III

Enclosures

cc: Docket 3649
E. N. Harshman
A. J. Martin
Sec.Op.Comm. (2)
Chron.

700

Surname copy

Ellis Selfridge
H E Simpson

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

FEB 7 1955

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

Re: Docket No. DMEA-3649 (Uranium)
Hamilton, et al, & Simpson Mining Co.
Rajah Nos. 67 & 68 claims
Mesa County, Colorado

Dear Mr. Traver:

The subject application is referred to Region III for investigation, a field examination only if deemed advisable, and recommendations. A copy of the application was forwarded to your office on January 25, 1955.

Enclosed are copies of memoranda from John E. Crawford, dated January 27, and E. L. Newcomb, dated January 31, 1955, members of the Uranium Commodity Committee.

Because of the proximity of ore production and purported favorable drill holes adjacent to the property, together with the knowledge that there is a possibility of favorable structure trending into the subject claims area, it was deemed advisable to refer the application to the Field Team.

However, from the maps it would appear that the total area covered by the two claims is actually less than one full claim. Moreover, there does not seem to be any additional land available to the Applicant. That question should be investigated. The major question, however, remains, and that is, what are the possibilities of discovering a substantial ore body that may result in good production and sufficient to justify the total cost of the project or a smaller project cost. That question can only be answered by investigating the results of past drilling, the adjacent production, and other favorable and unfavorable factors.

Sincerely yours,

George C. Selfridge

APPROVED:

J. H. Hedges
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

Chairman, Operating Committee

EWEllis/gla 2-3-55
cc to: Admr.'s Reading File Messrs.F
Operating Committee JECrawford, 3641
Docket THKiilsgaard, Rm. 5224
Code 700 JOHosted, Rm. 3210, GSA

R.C.S.

700

Surname copy

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

Ellis
Kilsgaard
Hedger
Selledge
Johnson

FEB 7 1955

Mr. Julian E. Simpson
Hamilton, Harris, McDavid, Phillips,
Ladd and Simpson Mining Company
304 Main Street
P. O. Box 127
Grand Junction, Colorado

Re: Docket No. DMEA-3649 (Uranium)
Rajah Nos. 67 & 68 claims
Mesa County, Colorado

Dear Mr. Simpson:

The application for assistance in exploring your property in Mesa County, Colorado, under the above-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 (for)

Administrator

EWEllis/gla
2-3-55
cc to: Admr.'s Reading File
Docket
Code 700
DMEA Field Team, Region III (2)

R.S.L.

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 1 1955

January 31, 1955

Re: DMEA-3649
Hamilton, Harris,
McDavid, Phillips,
Ladd and Simpson
Mining Company
(Rajah No. 67 and
No. 68 Claim Groups)
Mesa County, Colorado
$40,744.14 - Uranium

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

The applicant has proposed to drill 26 holes for a total footage of 10,694 feet to explore the upper part of the Salt Wash member of the Morrison formation. A first stage of 13 holes, drilled on 200 to 300 foot centers, would be followed by a second stage of 13 holes on 70 to 150 foot centers, if results of preliminary drilling indicate favorable mineralization.

There has been no production on the property and there are no known ore deposits on the Rajah claim groups.

The proposed project is based on the results of drilling by the U.S.G.S. and Mining, Inc. in ground which is contiguous with the Rajah claims. Out of 9 holes shown on the applicant's map, 4 of the holes are reported to have cut favorable beds. Two of the holes are reported to have cut ore, Holes BV-36 and BV-62. Favorable evidence of mineralization is also reported from drilling by Mining, Inc. on the Pack Rat No. 1 claim.

The nearest operating mine, the Lumsden No. 1 mine, is about 800 feet northeast of Rajah property. It is stated that this property is shipping 150 tons per month.

The Rajah claims are favorably located in relation to ore holes on nearby properties. Exploration on the Rajah may be warranted.

I recommend a referral be made for review and a possible examination by the Field Team. As much of the drilling in the immediate area has been done by the U.S.G.S., their information may be sufficient to appraise the proposed project without an on-site examination.

E. L. Newcomb

E. L. Newcomb

1/28/55 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JAN 28 1955

January 27, 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: DMEA Docket 3649, Hamilton, Harris, McDavid, Phillips, Ladd & Simpson Mining Company, P. O. Box 127, 304 Main Street, Grand Junction, Colorado.

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

We recommend that the attached application be denied. No information has been presented which would indicate the presence of uranium mineralization on the subject property. The application is based entirely on the geologic and geographic proximity of known uranium occurrences to the Rajah claims of the applicant and supposed geologic favorability of the area. It does not appear that this is sufficient basis for DMEA assistance. Why?

John E. Crawford

Attachment

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford
F i l e s

January 25, 1955

Hamilton, Harris, McDavid, Phillips,
Ladd and Simpson Mining Company
P. O. Box 127, 304 Main Street
Grand Junction, Colorado

Subject: DMEA 3649
Re: Exploration Assistance
Rajah No. 67 and No. 68
Group

Gentlemen:

The receipt of your application dated January 21, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3649 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

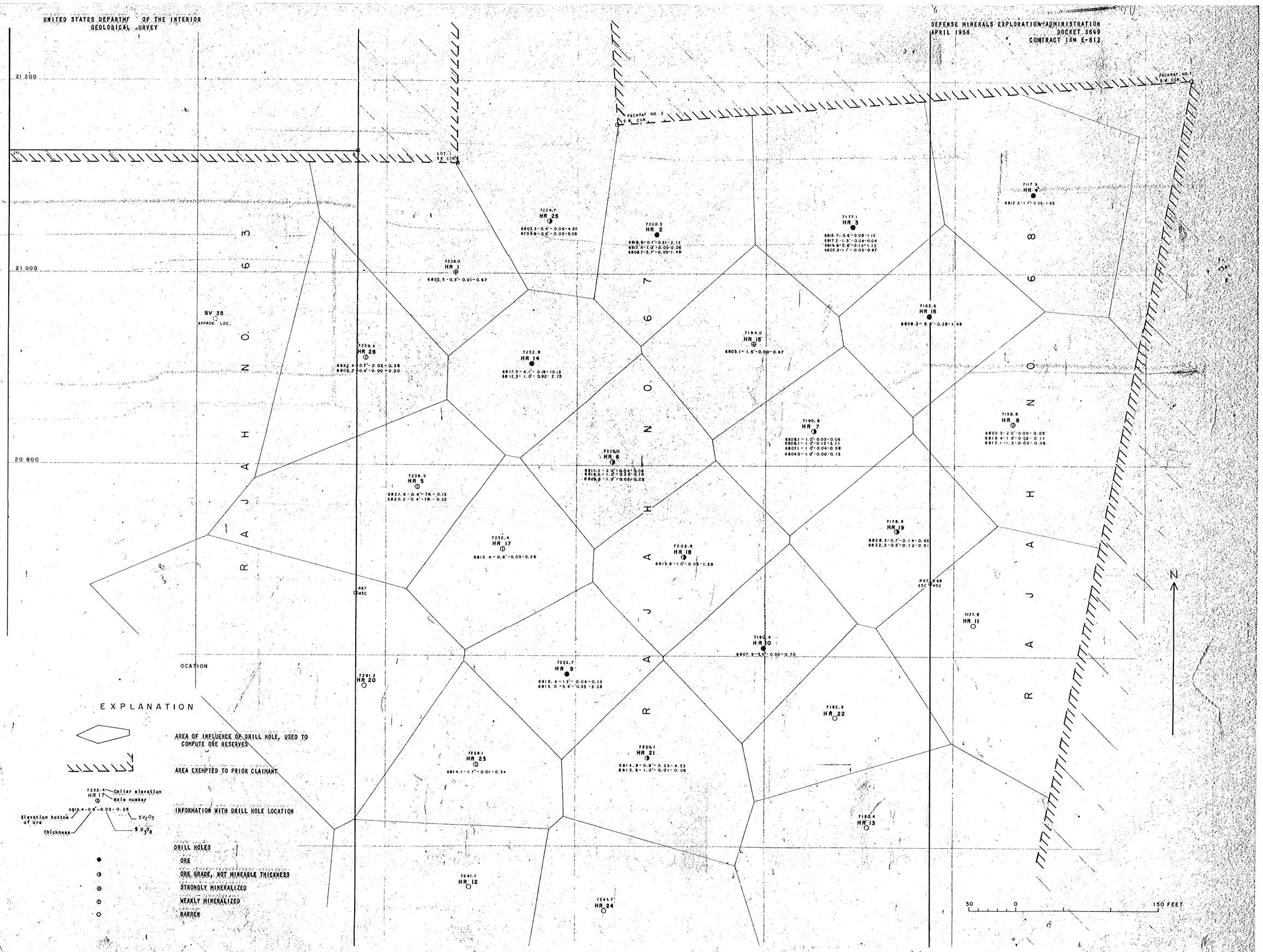


Figure 3. MAP OF PARTS OF RAJAH NOS. 67 AND 68 CLAIMS, SHOWING THE COMPLETED DRILLING PROJECT, ASSAY RESULTS FOR EACH DRILL HOLE, AND AREA OF INFLUENCE USED BY THE COMPANY TO COMPUTE ORE RESERVES, SIMPSON ET AL. MINING COMPANY, MESA COUNTY, COLORADO.