DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4692

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(Withdrawn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

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

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

Left Side

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

Right Side

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

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

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

Left Side

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

Right Side

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

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

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

9775

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

March 19, 1957

DMEA
RECEIVED MAR 21 1957

DATE	INITIALS	CODE

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Application for DMEA Aid (Uranium) Uranium & Rare Minerals, Inc. (Arrowhead Nos. 1-6, Cathedral Nos. 1 & 2 and Booger Red Claims) San Juan County, Utah

Enclosed are the original and one copy of the subject application. One copy of the application is being forwarded to the Grand Junction Office, DMEA. One copy of the application is being retained in our file.

Also enclosed are two copies of our letter dated March 19, 1957, to the applicant acknowledging receipt of the application which was initially sent to Ernest E. Thurlow, Atomic Energy Commission, Salt Lake City, Utah.

The applicant proposes to explore a mineralized target area within the Shinarump conglomerate by 5,000 feet of wagon drilling at a total estimated project cost of $6,000.00. No drilling cost estimates were enclosed with the application.

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

224 New Customhouse
Denver 2, Colorado

March 19, 1956

CORRESPONDENCE CONTROL
DMEA
RECEIVED MAR 21 1957

DATE	INITIALS	CODE

Mr. Don Acheson, Secretary
Uranium & Rare Minerals, Inc.
271 30th Street
San Francisco, California

Re: Application for DMEA Aid (Uranium)
Uranium & Rare Minerals, Inc.
(Arrowhead Nos. 1-6, Cathedral
Nos. 1 & 2 and Booger Red Claims)
San Juan County, Utah

Dear Mr. Acheson:

Your letter of February 24, 1957, addressed to Mr. Ernest E. Thurlow, U.S. Atomic Energy Commission, Salt Lake City, Utah, with attached DMEA application was received by this office on March 18, 1957.

Your application is being forwarded today to our Washington Office, DMEA, for their consideration and appropriate action.

The additional set of application forms requested, will be sent to you when our present supply is replenished.

Original signed by
E. N. HARSHMAN

By E. N. Harshman
Acting Executive Officer

MHM:eh

cc: Robert J. Meehan
Acting Area Manager
Salt Lake Area Office
U.S. Atomic Energy Commission
Sec. Op. Comm. (2)
King (2)
Hasler
Subject
Chron.

WC

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DMEA
DEPARTMENT OF THE INTERIOR
MAR 18 1957
REGION III
DENVER, COLORADO

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

RECEIVED
MAR 21 1957
D.M.E.A.

Not to be filled in by applicant

Docket No. 4692
Metal or Mineral Uranium
Date Received 3-21-57
Estimated Cost $6,000.00
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: Uranium & Rare Minerals Inc.
271 30th St.
San Francisco, Calif.
A Corporation of the State of California

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract A group of nine claims 1500 ft. long by 600 ft. wide in the vicinity of Cathedral Butte, San Juan County, State of Utah. Each claim described and marked on the ground and recorded with the San Juan County Recorder as unpatented claims

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise We claim the mineral rights to this land, having complied with U.S. & local law

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

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

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

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 and related minerals

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated February 24, 1957

Uranium & Rare Minerals Inc.
(Applicant)

By Alan Acheson

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

1. Sec. (a)

President — Frank C. Skelley
271 30th St.
San Francisco, Calif.

Vice President — Nordel Clark
1368 15th Ave.
San Francisco, Calif.

Treasurer — Harry Signori
398 Oxford Way
Belmont, Calif.

Recording Secretary — William Rodman
2526 Woodland Place
Redwood City, Calif.

Corresponding Secretary — Don Acheson
11 Rocca Drive
Fairfax, Calif.

OFFICE OF ... DENVER
RECEIVED MAR 21 1957
DATE | INITIALS | CODE

In addition to being a recognized Corporation of the State of California, we are also registered as a Foreign Corporation in the State of Utah.

3. Sec (b) Cathedral No. 1, Cathedral No. 2, Booger Red, Arrowhead No. 1, Arrowhead No. 2, Arrowhead No. 3, Arrowhead No. 4, Arrowhead No. 5, Arrowhead No. 6.

Sec (f)

Cathedral No. 1	Book 100	Page 154
Cathedral No. 2	Book 100	Page 155
Booger Red	Book 100	Page 158
Arrowhead No. 1	Book 100	Page 155
" " No. 2	Book 100	Page 156
" " No. 3	Book 100	Page 156
" " No. 4	Book 100	Page 157
" " No. 5	Book 100	Page 157
" " No. 6	Book 100	Page 158

4. Physical description. (a) On the Cathedral Claims, which are situated on Salt Creek Mesa, about one-half mile Southwest of Cathedral Butte, we have done some core drilling. However lack of the proper equipment forced postponement of this operation. From these claims we built a road into the canyon on a Shinirump Drop formation to the Booger Red and Arrowhead claims. (See enclosed maps) On Arrowhead No. 1 we drifted in approximately thirty feet and submitted samples of ore taken from the mine shaft to the A.E.C. Operations Office in Grand Junction, Colorado. On September 19th, 1956 we received Sample Report No. 43921 showing an analysis reading of .71 UO. There is a good road as far as the Dugout Ranch and a fairly good road from there to the claims.

4. (c) A vein of Carnotite in the Conglomerate Shinirump formation. From the entrance to the mine along the face of the cliff through Arrowhead No. 2 a strong radiation has been recorded on our Geiger Counters. Supplementing this is an exposed area approximately twenty five yards long and varying in thickness up to eight inches of what we believe to be yellow Carnotite. An A.E.C. geologist told our Field Man that in his opinion it was worth exploring. It is our opinion that a series of holes Wagon Drilled to a depth of two hundred feet would determine the richness of these claims.

(d) The claims are about forty miles from Monticello. About twenty five miles is good highway the other fifteen miles is unimproved.

5. (b) A Wagon Drilling program of between twenty five and thirty holes of from 150 to 200 feet in depth. The drilling to be done by a reputable drilling Company of that area.

(c) The work to start as early in the Spring as equipment can be moved in and completed as soon as possible.

6. (a) Baker Graham Co. of Grand Junction submitted the following rates for Wagon Drilling our Claims. Seventy-five cents per foot of drilling up to one hundred feet and one dollar and fifty cents per foot of drilling over one hundred feet. At these rates the cost of the exploration work would be as follows,

25 holes 200 ft. in depth.

First 2500 ft. at $0.75 per ft. of drilling	$1875.00
Second 2500 ft. at $1.50 per ft. of drilling	3750.00
Miscellaneous expense	375.00
Total	$6000.00

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/23	Ching	700
7/23	Ellis	700
7/24	Martin	130
7/24	Lenz	130
7/24	Kiilsgaard	130
"	Johnson	110
"	Mittendorf	100
7/25	P.K.	220
		225

JUL 25 1957

Mr. Don Acheson, Secretary
Uranium & Rare Minerals, Inc.
271 30th Street
San Francisco, California

Re: Docket No. DMEA-4692 (Uranium)
Arrowhead, et al., Claims
San Juan County, Utah

Dear Mr. Acheson:

Your application for aid in an exploration project and other information available to us in Washington concerning the above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting a small amount of uranium mineralization on your property, indicates that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

MChing/izm 7-23-57
cc to: Mr. Ching
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
DMEA FT Reg. 3 (2)

8623

Docket

Ching Ellis

July 23, 1957

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-4692

Commodity: Uranium

Applicant: Uranium & Rare Minerals Inc., a California corporation
271 - 30th Street
San Francisco, California

Property: 9 unpatented lode mining claims, Cathedral Nos. 1-2, Booger Red, and Arrowhead Nos. 1-6, located in sec. 3, T. 33 S., R. 20 E., S.L.M.&B. San Juan County, Utah. Applicant is the owner of the mineral rights.

Date of Application: Feb. 24, 1957

Amount of Application: $6,000.00

Referred to Region III: April 5, 1957

Field Examination made: June 4, 1957

Field Team Report received: July 5, 1957

Work Proposed: 25 wagon drill holes, 200 feet in depth, to explore the Shinarump (?) conglomerate with costs as follows:

2,500 ft. wagon drilling @ $0.75/ft.	$1,875.00	
2,500 ft. wagon drilling @ $1.50/ft.	3,750.00	
Miscellaneous	375.00	
Total		$6,000.00
Government Participation @ 75%		$4,500.00

Field Team Report: June, 1957 - D. P. Elston, USGS, & Lloyd M. Green, USBM:

The claims are underlain by the Moss Back member of the Triassic Chinle formation, which averages about 80 feet thick, Anomalous radioactivity was detected by the Applicant in siltstone in the Monitor Butte member about 3 feet below the base of the Moss Back member. Rim stripping and a 40-foot drift at this level showed that the anomalous radioactivity is spotty and restricted to within a few feet of the outcrop. Ore minerals were not visually detectable at any place. No channel scour was found at the base of the Moss Back member.

The highest radioactivity was found at the portal of the adit where a small area with dimensions of less than a foot had a radiation of 0.9 Mr/hr. Other areas in the vicinity of the portal had an average reading of 0.13 Mr/hr. The radiation in the drift ranged from 0.03 to to 0.07 Mr/hr. A sample from the basal part of the Moss Back had a reading of 0.02 Mr/hr.

The only known production in the general area has come from the Horseshoe mines, about 3 miles to the southeast. A total of 621 tons of 0.22% U_3O_8 ore was produced from deposits located in a broad, deep channel scour at the base of the Moss Back member.

The presence of the major anomalous radioactivity in an unfavorable host rock and the lack of a favorable sedimentary structure indicate that the chances for finding a significant deposit on these claims are poor. It is recommended that the application be denied.

Commodity Group Comments:

USGS, W. P. Williams, July 16, 1957:

In view of the unfavorable aspects of the property a significant discovery would not result from the proposed work. The application should therefore be denied.

USBM, James Paone, July 17, 1957:

Agrees with the Field Team and advises denial of the application.

Div. of Rare & Misc. Metals, Michael Ching, July 23, 1957:

The Moss Back member of the Chinle formation is the recognized ore-bearing rock in this area. Ore bodies in the Moss Back are usually found associated with channel scours. Anomalous radioactivity leading to the subject application was found below the Moss Back, in the Monitor Butte member, and no channel scours nor significant mineralization were found in the Moss Back.

Conclusions and Recommendations:

Geological conditions are not favorable for a worthwhile discovery on this property. It is recommended that the application be denied.

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

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Complete		

July 17, 1957

4692

Uranium

Uranium & Rare Minerals, Inc.

Arrowhead, et al claims

San Juan County, Utah

$6,000

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
James Paone, Bureau of Mines Member
Uranium Commodity Committee

Joint report of examination

(Z. Martin, Field Team Rep'n, etc.)

1. Date of field examination: 7/2/57 2. Date received by reviewer: 7/16/57

3. Field reports on this project by Team to reviewer: Yes [ ] No [ ]

4. Field reports on nearby properties by Team to reviewer: Yes [ ] No [ ]

5. Information available on past production: Yes [ ] No [ ]

6. Other pertinent factors known to reviewer: Yes [ ] No [ ]

7. Briefly state reason for claim:

8. Factors meeting special consideration:
   a. Location [ ]
   b. Accessibility [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration method [ ]
   f. Alternate exploration method [ ]
   g. Costs [ ]
   h. _____ [ ]

9. Action advised:
   a. Obtain further plan from applicant [ ]
   b. Refer to Field Team [ ]
   c. Denial [x]
   d. Agree with Field Team [x]
      1. Consult with I.R. _____
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [ ]
   i. _____ AEC office.

10. Remarks: (Use back of page if necessary)

IN REPLY REFER TO:

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

DATE		
7/17	P.K.	220
"	Cheng	700

July 16, 1957

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4692 (uranium) Uranium and Rare Minerals, Inc.

The DMEA examining team report that conditions on the applicant's property are not favorable for the presence of large uranium ore deposits. The lack of a channel scour in the Mossback member of the Chinle and the unfavorable nature of the Mossback sandstone and associated mudstones seem to be the worst features of the property.

Little ore has been mined in the vicinity. The Horseshoe mines, about 3 miles southeast of the applicant's claims, has produced a total of only 621 tons of ore. A 40-foot drift and some rim stripping did not find minable ore. The work did show that ore minerals are scattered in spotty fashion.

I agree with the examining team's conclusion that a significant discovery would not result from the proposed work. In view of the unfavorable aspects of the property, it seems that the application should be denied.

W. P. Williams

W. P. Williams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

July 2, 1957

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Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 4692 (Uranium) Uranium and Rare Minerals, Inc. (Arrowhead, et al Claims) San Juan County, Utah - Joint Report of Examination

Enclosed are the original and two copies of the Joint Report of Examination on the subject property by Lloyd M. Green, USBM, and D. P. Elston, USGS.

The field examiners conclude that the probability for making a significant discovery is not sufficiently promising to justify Government participation. Accordingly, they recommend that the Applicant's work proposal be denied to which the Field Team concurs.

ON-SITE EXAM.

W. H. King
W. H. King
Executive Officer

Reviewed by
DMEA OPERATING COMMITTEE
7-8-57
(date).

MINERAL DEPOSITS
RECEIVED
JUN 28 1957
U. S. GEOLOGICAL SURVEY DENVER, COLORADO

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
DEPARTMENT OF THE INTERIOR
JUL 2 1957
REGION III
DENVER, COLORADO

P. O. Box 500
Grand Junction, Colorado

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June 26, 1957

TRANSMITTED
JUL 2 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman

From: J. William Hasler

Subject: Transmittal of joint engineering and geologic report on DMEA docket 4692 (Uranium), Uranium and Rare Minerals, Inc., Arrowhead, et al claims, San Juan County, Utah

The Uranium and Rare Metals, Inc., 271 Thirtieth Street, San Francisco, California, applied for government assistance to explore for uranium on the Arrowhead et al claims, San Juan County, Utah. The application was referred to the field and an examination was made June 4, 1957 in company with Mr. Frank C. Skelly and Nordel Clark, president and vice-president of the company, respectively.

The claims are in Sec. 3, T. 33 N., R. 20 E., S.L.M., on the north edge of Elk Ridge, about 3-1/2 miles west of Bridger Jack Mesa.

The applicant proposed 5,000 feet of non-core wagon drilling to explore the Moss Back member of the Chinle formation of Triassic age. Anomalous radioactivity detected in the siltstone and sandy siltstone, 3 to 5 feet below the base of the Moss Back member, at once place on the claims was rim stripped. A 40-foot drift showed that the anomalous radioactivity is spotty and is restricted to within a few feet of the outcrop. One spot, restricted to a few inches of the outcrop, is largely mineralized and is reported to assay ore grade. However, the ore minerals are not visible, either at this spot or in the adjacent nearby sandstone which is anomalously but not significantly radioactive. The presence of the radioactivity in an unfavorable host rock, the spotty distribution of the radioactivity, and the restriction of radioactivity to the outcrop indicate that the chances of finding a significant uranium ore deposit here is poor. No channel scour at the base of the overlying Moss Back member that might contain a significant uranium deposit was observed on the claims; therefore, it is recommended that the application for DMEA assistance be denied.

The Atomic Energy Commission was consulted relative to an appraisal of the property. I concur with the conclusions and recommendations of the examining team that the application be denied.

Reviewed by
DMEA OPERATING COMMITTEE
7-8-57
(date)

DMEA 4692 6/26/57

Enclosed are 12 copies of a joint report of examination, with included maps, as well as the applicant's brochure.

J. William Hasler

J. William Hasler,
Geologist

JWH/mlr

Enclosures
Report (12 copies)
Brochure

FOR UNITED STATES GOVERNMENT USE ONLY

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

TRANSMITTED

JUL 2 1957

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY EXAMINING TEAM
REGION III

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RECEIVED JUL 5 1957

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DMEA 4692

Uranium and Rare Minerals, Inc.

Arrowhead, et al claims

San Juan County, Utah

Uranium

Joint Engineering and Geologic Report

by

D. P. Elston
Geological Survey

Lloyd M. Green
Bureau of Mines

June 1957

Reviewed by
DMEA OPERATING COMMITTEE
7-8-57
(date)

DMEA 4692
URANIUM AND RARE MINERALS, INC.
ARROWHEAD, ET AL CLAIMS
SAN JUAN COUNTY, UTAH

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ILLUSTRATIONS

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DMEA 4692
URANIUM AND RARE MINERALS, INC.
ARROWHEAD ET AL CLAIMS
SAN JUAN COUNTY, UTAH

INTRODUCTION AND SUMMARY

The Uranium and Rare Minerals, Inc., 271 30th Street, San Francisco, California, applied for DMEA assistance for exploration drilling on the Arrowhead, et al claims, San Juan County, Utah, on February 24, 1957. The claims are in section 3, T. 33 S., R. 20 E., S.L.M., on the north edge of Elk Ridge about 3-1/2 miles southwest of Bridger Jack Mesa.

The applicant proposes 5,000 feet of non-core wagon drilling in the Moss Back member of the Chinle formation of Triassic age. The estimated cost of the program is $6,000 with Government participation at 75 percent totaling $4,500. The entire program stipulates a total of 25 holes averaging 200 feet in depth; proposed hole locations have not been noted on the applicant's map.

The application, DMEA 4692, was referred to the field and an examination was made on June 4, 1957. The examining team, consisting of Donald P. Elston, U.S. Geological Survey, and Lloyd M. Green, U.S. Bureau of Mines, was accompanied by Messrs. Frank C. Skelley and Nordel Clark, president and vice-president of the company.

Property included in the application consists of 9 unpatented lode mining claims that are accessible from a Forest Service road that connects Dugout Ranch with Elk Ridge.

Reviewed by
DMEA OPERATING COMMITTEE
7-8-57
(date)

The Arrowhead, et al claims are staked on the Moss Back member of the Triassic Chinle formation, which averages about 80 feet thick. Anomalous radioactivity, detected in siltstone and sandy siltstone 3 to 4 feet below the base of the Moss Back member at one place on the claims, was rim stripped. A 40-foot drift showed that the anomalous radioactivity is spotty and is restricted to within a few feet of the outcrop. One spot, restricted to a few inches at the outcrop is richly mineralized, and is reported to assay ore grade. The ore minerals are not visually detectable, either at this spot or in the adjacent nearby siltstone which is anomalously but not significantly radioactive. The presence of the radioactivity in an unfavorable host rock, the spotty distribution of the radioactivity, and the restriction of radioactivity to the outcrop indicate that the chance for finding a significant uranium ore deposit here is poor. No channel scour at the base of the overlying Moss Back member that might contain a significant uranium deposit was observed on the claims, therefore it is recommended that the application for DMEA assistance for exploration be denied.

ACKNOWLEDGMENTS

The Atomic Energy Commission was consulted for production and reserves of the general area. Mr. M. A. Lekas, AEC, supplied general information on the Horseshoe Mines, from an unpublished AEC report by E. W. Oertell.

LOCATION, TOPOGRAPHY, AND CLIMATE

The 9 unpatented Arrowhead, et al claims are in sec. 3, T. 33 S., R. 20 E., S.L.M., San Juan County, Utah, at altitudes ranging from about 6,600 feet to 7,300 feet (fig. 1, 2). The claims are about one mile southwest of Cathedral Butte; two of the claims are on Salt Creek Mesa at an elevation of about 7,100 feet; the remaining seven claims are on a bench to the south at an elevation of about 6,700 feet. Annual average precipitation is light, but because of the proximity of the claims to Elk Ridge, summer and winter storms localized around this topographic feature can more frequently interrupt work than in the desert region 10-20 miles away.

The claims are accessible from Moab, Utah, by traveling 43 miles south on U.S. Highway 160, 20 miles south of the La Sal junction, thence westerly for 20.4 miles on the Indian Creek road to Dugout Ranch, thence southerly for 18 miles along the Forest Service road to Elk Ridge to a turn-off on the southwest side of Cathedral Butte. The claims are approximately one-half mile south of the Elk Ridge road. A market for uranium ore is provided at Monticello and Moab, Utah, and also at Thompson, Utah which is a station on the Denver, Rio Grande and Western Railroad, 55 miles north of Moab.

OWNERSHIP AND EXTENT

The applicant is a California corporation and is the owner of the minerals rights of nine unpatented claims located about one-half mile southwest of Cathedral Butte, San Juan County, Utah. All claims are recorded in the San Juan County courthouse at Monticello, Utah. Listed below are the names of the claims and the recording data:

	Notice of Location			Amended Notice of Location		
Name of Claim	Date	Book	Page	Date	Book	Page
Arrowhead No. 1						
Arrowhead No. 2	6/25/53	29	8	3/4/54	65	301 & 302
Arrowhead No. 3	6/25/53	29	8	3/4/54	65	301 & 302
Arrowhead No. 4	6/7/53	319	33 & 34			
Arrowhead No. 5	6/7/55	319	33 & 34			
Arrowhead No. 6	6/7/55	319	33 & 34			
Cathedral No. 1	7/17/53	31	3	3/4/54	65	301 & 302
Cathedral No. 2	7/17/53	31	3	3/4/54	65	301 & 302
Booger Red	2/13/54	57	251	3/12/54	69	113

These claims were staked in the field, however, their recorded locations are not fixed because they were not tied into a land corner. The "Proof of Labor " on these claims was dated June 26, 1956, and is recorded in book 114, p. 81 at the San Juan County court house at Monticello, Utah.

A conflict exists between the applicant's claims and the L. B. claim of Bailey and Murphy. However, the L. B. claim apparently was never recorded. A claim staked by Helen and Edward Knight overlaps the applicant's claim, Cathedral No. 1, but no record could be found of the claim in the County Recorder's office. A conflict was noted

between the applicant's "Booger Red", and "Guidon No. 1" which was staked by Lyle F. Campbell and Julian E. Simpson. Mr. Campbell was contacted and stated that he and Simpson would make no attempt to hold their claim.

No further efforts were made to determine the ownership of the property under consideration, as this application for aid is being recommended for denial.

PRESENT STATUS

Exploration and Development

Very little exploratory work has been done on this property. Two test holes were started, but both were discontinued at a depth of 40 feet due to a loss of circulation of the drilling medium.

On the Arrowhead No. 1 claim, a drift has been driven in a mudstone unit of the Chinle formation that is 5 feet wide and 6 feet in height, with a length of 40 feet. The drift trends north 20 degrees east and has about 80 feet of cover. According to the operator, samples of the ore taken from this drift were sent to the AEC office at Grand Junction, Colorado and assayed 0.71 percent U_3O_8, however the scintillator showed very little radioactivity in the drift.

Mining Equipment and Other Facilities

There is no mining equipment on the property. The applicant proposes to contract all exploratory work.

Water to be used in the exploratory drilling will have to be hauled in by truck, as the nearest source of water is a stream 15 miles away.

Timber in the area would not be suitable for mine use. Consequently, timber, as well as all other supplies, would be hauled in from Monticello or Moab, Utah.

Living quarters would have to be built on the property, or a trailer camp would have to be established to house the miners.

Electric power could be furnished by gasoline or diesel power plants.

GEOLOGY

The Arrowhead, et al claims are about 1 mile southwest of Cathedral Butte, on the north end of Elk Ridge, San Juan County, Utah (fig. 2). Topography of the area is shown on the Elk Ridge 1-NW quadrangle; a photogeologic map entitled Elk Ridge-2 Utah, San Juan County, TEMR 794, by R. J. Hackman is available.

Strata exposed in the general area are the Permian Cutler formation, the Triassic Moenkopi, Chinle and Wingate formations, the Jurassic (?) Kayenta formation, and the Jurassic Navajo sandstone. Strata that crop out on the claims are the Lower Triassic Moenkopi formation and Upper Triassic Chinle formation. The Chinle formation on the claims consists,

in ascending order, of the Monitor Butte member, the Moss Back member, the Owl Rock member, and the Church Rock member which have an aggregate thickness of about 640 feet.[1/] The Shinarump member of the Chinle formation pinches out about 3 miles southwest although a discontinuous lense of Shinarump crops out about 1/2 mile north of the claims. The claims are staked on the Moss Back member which is about 80 feet thick but which thickens several miles to the northeast to as much as 140 feet. The contact of the Monitor Butte member with the underlying Moenkopi formation is covered on the claims but the thickness of the Monitor Butte member may be as much as 40 feet.

The Moss Back member of the Chinle formation is a light brown to gray, very fine- to medium-grained, well sorted, locally conglomeratic sandstone. The sandstone is composed of sub-rounded clear quartz, rare black accessories, and sparse flakes of muscovite. Lenses of conglomeratic sandstone are irregularly distributed in the lower 10 to 20 feet of the member. The coarser fractions are composed of dark gray, red, and brown chert and quartzite pebbles and a few small boulders of quartzite. Carbonaceous fossil plant material is common but the larger plant fragments and fossil logs are commonly silicified. Bedding ranges from horizontal to planar and trough cross-bedding. Individual beds range from one to ten feet thick, with beds commonly separated by gray-green mudstone

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1/ Stewart, John H., 1957, Proposed Nomenclature of part of Upper Triassic strata in southeastern Utah, AAPG Bull. Vol. 41, No. 3, pp. 441-465

or silty very fine-grained sandstones. The entire member weathers as a single cliff-forming unit.

Mudstone of the Monitor Butte member directly underlies the Moss Back member. Gray-green colored mudstone, as much as 7 feet thick at the top of the member has been exposed by rim stripping in the vicinity of the adit on the Arrowhead No. 1 claim. Laterally, the mudstone directly beneath the Moss Back member becomes red with some green mottling. The mudstone consists of claystone, siltstone, and silty sandstone, containing discontinuous lenses of fine- to very fine-grained sandstone. The mudstone at the top of the member weather with a puffy appearance suggesting the presence of bentonitic clays.

The strata on the claims strike northwesterly and dip from 1 to 3° NE. Two northeasterly trending faults are exposed on and near the property. These faults define a graben with displacement on the north being about 400 feet and on the south about 300 feet. Seven of the subject claims are staked on the Moss Back member within the graben; two of the claims, the Cathedral Nos. 1 and 2 are on Moss Back that is north of the graben (fig. 2).

ORE DEPOSITS

The only recorded production of uranium ore in the general area has come from the Horseshoe mines, located about 3 miles southeast of the subject property. These consist of two mines, on the Horseshoe and Horseshoe 1 claims, that produced a total of 621 tons averaging 0.22 percent U_3O_8 and 0.02 percent V_2O_5, in 1952-53. These mines are in the Moss Back member within a broad, deep scour that intersects the Moenkopi formation. There has been no production from three other prospects ranging from 1/2 to 3 miles from the subject property.

Anomalous radioactivity was detected by the applicant on five of the subject claims. Rim stripping and the driving of a 25-foot drift directly beneath the Moss Back member on the Arrowhead No. 1 claim was undertaken. The anomalous radioactivity here is in siltstone in the Monitor Butte member about 3 feet below the base of the Moss Back member. A portion of the outcrop of the Monitor Butte member, about 25 yards long, was found to be anomalously radioactive but no ore minerals were noted. The mudstone is gray to gray-green in color and is mottled red by hematite (?) and locally, by jarosite (?). The highest radioactivity is at the portal of the adit where a local area in a silty and sandy mudstone, with dimensions of less than a foot, has a radiation of 0.9 mr/hr. Comparable material sampled by the applicant reportedly contained 0.71 percent U_3O_8. The enclosing mudstone in the vicinity of the portal and within a foot of the outcrop, has an average count of

about 0.13 mr/hr. The radiation measured along the walls of the drift, from about 5 feet to 40 feet from the portal (face) ranges between 0.03 to 0.07 mr/hr. The principal radiation is at the outcrop but it is weak and is irregularly distributed. This deposit thus appears to be a "rim enrichment" type of deposit, a type that is common but has not proved to be commercial in the White Canyon area to the southwest. The mudstone host rock, in addition, is not classed as favorable for the localization of significant ore deposits.

There is evidence that some uranium ore minerals may be present in a sandstone host rock in the overlying Moss Back member. There is some very slight anomalous radioactivity in sandstone in the basal part of the Moss Back member on the Arrowhead 1 claim just east of the portal. A sample collected here has a radioactivity of 0.021 mr/hr. In the sample, colorless material in microscopic veinlets fluoresces as does a fine powder on a mudstone gall. The color of the powdery material on the mudstone gall is a pale greenish yellow and apparently is the source of the anomalous radioactivity. The mineral may be zippeite, a hydrous uranium sulphate, but it fluoresces a bright apple green, somewhat brighter than an available specimen of zippeite. The mineral in question, however, might be a silicate containing a minor amount of uranium, similar to material found by R. Q. Lewis, Jr., U.S. Geological Survey, in the Navajo Reservation (personal communication).

Although the basal contact of the Moss Back member is not everywhere exposed on the claims, there apparently is no deep scour similar to that on the Horseshoe claims to the southeast. The lack of such a scour here suggests that the chance for finding a significant ore deposit in the Moss Back member on the subject claims is poor.

PROPOSED EXPLORATION

The applicant proposes to wagon drill 25 holes to a depth of 200 feet. The Baker Graham Company of Grand Junction has submitted the following bid for wagon drilling on the applicant's property:

$0.75 per foot of drilling up to 100 feet, and $1.50 per foot of drilling for all footage over 100 feet.

At these rates, the cost of the exploration program would be as follows:

(25 holes-200 feet in depth)

First - 2,500 feet at $0.75 per foot	$1,875.00	
Second - 2,500 feet at $1.50 per foot	3,750.00	
Miscellaneous expense	375.00	
Total		$6,000.00

The proposed location of the 25 holes was not given.

CONCLUSIONS AND RECOMMENDATIONS

The only known ore deposits in the general area are small, and they lie about 3 miles southeast of the subject claims in the Moss Back member of the Chinle formation of Triassic age. The deposits are located in a broad and deep channel scour at the base of the Moss Back member. No such channel scour was observed on the Arrowhead, et al claims. Rather, the anomalous radioactivity is localized in mudstone about three feet below the base of the Moss Back member. The lack of a favorable sedimentary structure and the presence of the major anomalous radioactivity in an unfavorable host rock indicates that the chance for finding a significant ore deposit on these claims is poor. It is therefore recommended that the application for DMEA assistance be denied.

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
JUNE 1957
DOCKET 4692

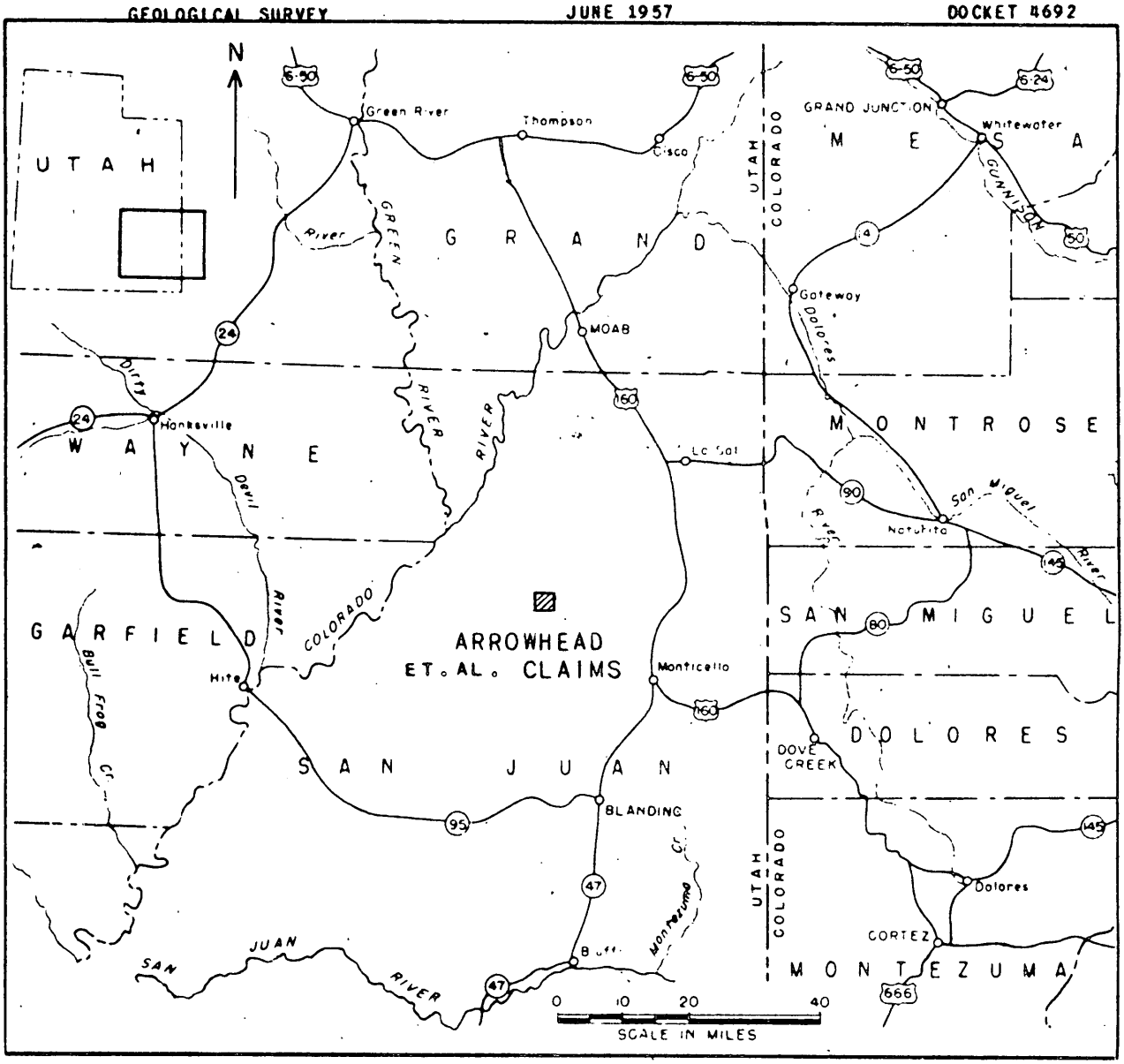
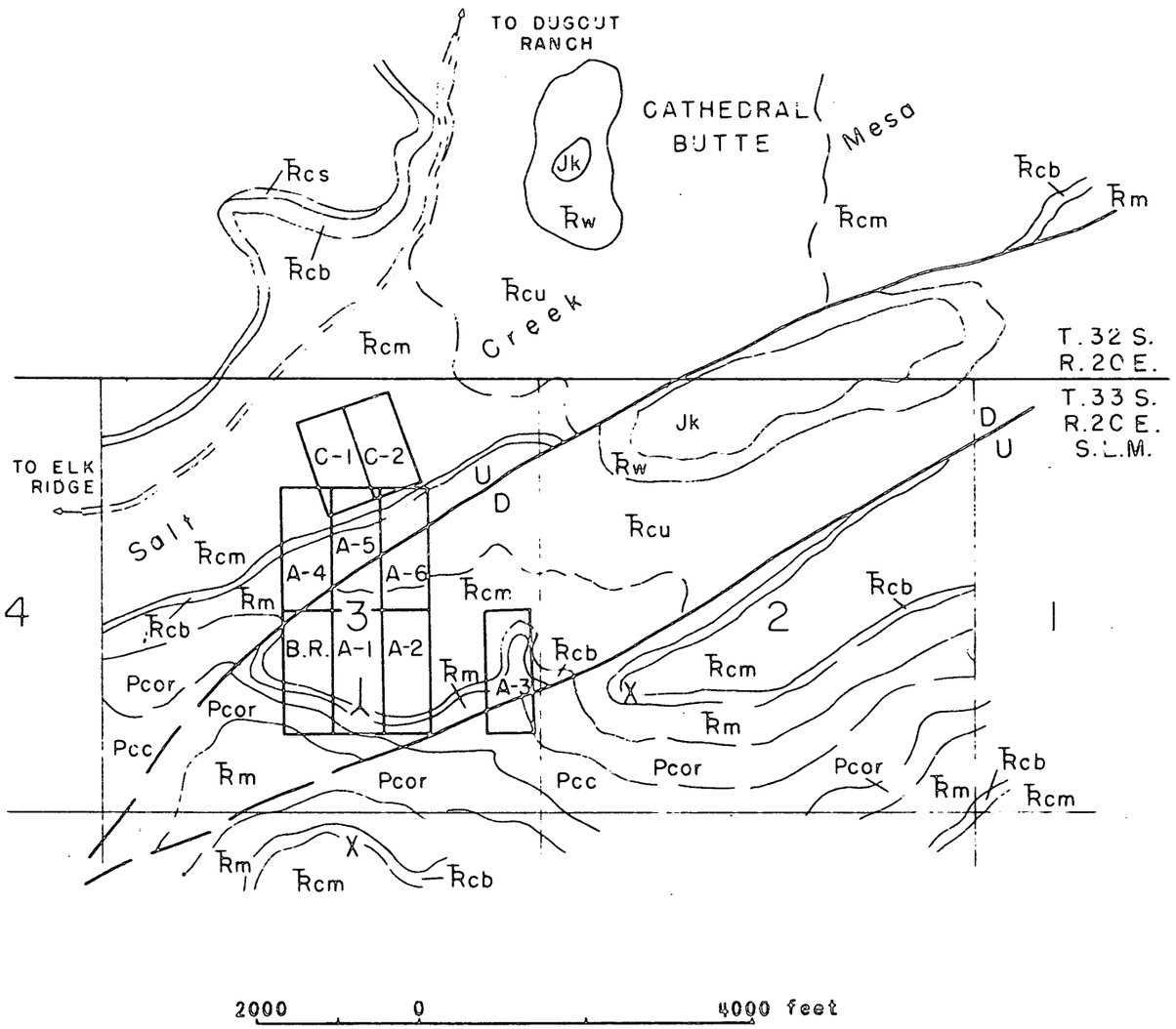


FIGURE 1.--LOCATION OF ARROWHEAD, ET. AL. CLAIMS, URANIUM AND RARE MINERALS, INC., SAN JUAN COUNTY, UTAH.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
JUNE 1957 DOCKET 4692



Note: GEOLOGY FROM PHOTOGEOLOGIC MAP, ELK RIDGE - 2, LAND LINES FROM U.S.G.S. TOPOGRAPHIC QUADRANGLE ELK RIDGE 1 NW; CLAIMS APPROXIMATELY LOCATED.

EXPLANATION

- Jk — KAYENTA FORMATION OF JURASSIC(?) AGE
- Rw — WINGATE SANDSTONE OF TRIASSIC AGE
- Rcu — OWL ROCK AND CHURCH ROCK MEMBERS (UNDIFFERENTIATED) OF TRIASSIC CHINLE FORMATION
- Rcm — MOSS BACK MEMBER OF TRIASSIC CHINLE FORMATION
- Rcb — MONITOR BUTTE MEMBER OF TRIASSIC CHINLE FORMATION
- Rcs — SHINARUMP MEMBER OF TRIASSIC CHINLE FORMATION

UNCONFORMITY

- Rm — MOENKOPI FORMATION OF TRIASSIC AGE
- Pcor — ORGAN ROCK MEMBER OF PERMIAN CUTLER FORMATION
- Pcc — CEDAR MESA SANDSTONE MEMBER OF PERMIAN CUTLER FORMATION
- CONTACT, DASHED WHERE APPROXIMATELY LOCATED
- U/D — HIGH ANGLE NORMAL FAULT, DASHED WHERE APPROXIMATELY LOCATED: U - UPTHROWN SIDE, D - DOWNTHROWN SIDE
- B.R. — CLAIM BOUNDARY: B.R. - BOOGER RED CLAIM; A - ARROWHEAD; C - CATHEDRAL
- ADIT
- X — PROSPECT

FIGURE 2.--GEOLOGIC SKETCH MAP OF ARROWHEAD, ET. AL. CLAIMS, URANIUM AND RARE MINERALS, INC., SAN JUAN COUNTY, UTAH.

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DMEA
DEPARTMENT OF THE INTERIOR
APR 10 1957
REGION III
DENVER, COLORADO

April 9, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4692 (Uranium) Uranium & Rare Minerals, Inc., (Arrowhead, et al, claims) San Juan County, Utah

The application for Uranium & Rare Minerals, Inc., Docket DMEA 4692, in the amount of $6,000.00 was received in this office on April 9, 1957.

A field examination will be made and suitable report prepared by an engineer from the Denver or Grand Junction office.

W. H. KING

W. H. King

cc: Executive Officer (2)
E. N. Marshman
J. W. Hasler
M. K. Salsbury
J. F. Shaw

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CODE 220
700

224 New Customhouse
Denver 2, Colorado

April 8, 1957

Memorandum

To: W. H. King) W/enclosures, Items 1-5 Below
J. W. Hasler) W/enclosures, Items 2-4 Below

From: DMEA Field Team, Region III

Subject: Docket DMEA 4692 (Uranium) Uranium & Rare Minerals, Inc. (Arrowhead, et al., Claims) San Juan County, Utah

Enclosed is the following material relating to the subject docket.

1. Copy of application for Government assistance in exploration work under the DMEA program.
2. Memorandum of Review by James Pacne, USBM.
3. Memorandum of Review by W. P. Williams, USGS.
4. Letter of transmittal of the foregoing to this office, dated April 5, 1957, from the Chairman, Operating Committee, DMEA.
5. Routing control sheet.

A joint report of recommendations based on available information or a joint report of findings and recommendations based on a field examination is requested.

If the field examiners view the work proposal favorably, the applicant should be instructed to submit to this office a bid for the drilling recommended from each of three independent drilling contractors. At the same time he should submit a more detailed drilling program than the one submitted with the application.

Twelve extra copies of each map used in the joint report which show the land to be subordinated and the location and extent of recommended work, relative to property boundaries, should be submitted if Government participation is recommended.

The Bureau of Mines' copy of the application should be returned to this office with the joint report of examination. The Survey's copy of the application is to be returned to Mr. Harahman's office.

By E. N. Harahman
Acting Executive Officer

Enclosures

MRM:ah
cc: Sec. Op. Comm. (2)
Harahman (2) W/enclosures, Items 2-4
King
Dechet
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/5	Ching	700
"	Ellis	700
4/5	Selfridge	130
"	Johnson	110
"	Mittendorf	100
4/8	C	220
		700

APR 5 - 1957

Mr. Don Acheson, Secretary
Uranium & Rare Minerals, Inc.
271 30th Street
San Francisco, California

Kielgaard
Lamb

Re: Docket No. DMEA-4692 (Uranium)
Arrowhead, et al., Claims
San Juan County, Utah

Dear Mr. Acheson:

The application for assistance in exploring your claims, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

Mr. E.N. Harshman
Acting 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

MChing/gla
4-5-57
cc to: Admr.'s Reading File
Code 700, Mr. Ching
DMEA Field Team, Region III (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/5	Ching	700
"	Ellis	700
4/5	Selfridge	130
"	Johnson	110
"	Matthews	100
		220
		700

APR 5 - 1957

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4692 (Uranium)
Uranium & Rare Minerals, Inc.
Arrowhead, et al., Claims
San Juan County, Utah

Dear Mr. Harshman:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendations.

Enclosed for your information are memoranda, dated March 27 and April 3, 1957, by James Paone, USBM, and W. P. Williams, USGS, respectively, relating to the application. Also enclosed is a copy of the application for the use of the Field Team.

The application is poorly documented, but the most practicable approach appears to be to examine the property, if this is justified, and if found favorable, to request the Applicant to supply drill bids and a more detailed drilling program.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

APPROVED:

Frank D. Lamb

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

MChing/gla
4-5-57
cc to: Admr.'s Reading File
Operating Committee
Code 700, Mr. Ching
T. H.Kiilsgaard, 5224

8623

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

IN REPLY REFER TO:

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"	~~Celt's~~ Cheng	700
	Comments	
	Complete	

April 3, 1957

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 4692, Uranium and Rare Metals, Inc., Arrowhead, et al Claims, San Juan County, Utah (Uranium)

The applicant proposes to explore for uranium ore deposits on a tract of nine mining claims located near Cathedral Butte, Utah. The proposed project would consist of 25 wagon-drill holes, to be drilled into the Shinarump conglomerate, at a total estimated cost of $6,000.

The application is brief and not detailed. A small sketch map shows the claim outlines, but little more. The locations of geologic contacts, rims, proposed hole sites, etc., are not specified. Drilling bids are not attached. Claim location data are incomplete. The property, however, appears to be in an unsurveyed area. Cost estimates are not detailed.

The applicant might justifiably be asked to supplement his application. The alternative would be to refer the application to the Field Team, as I have no specific information about these particular claims. The applicant mentions a 30-foot drift but does not say whether any ore has been shipped.

W. P. Williams

W. P. Williams

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RECEIVED MAR 28 1957

DATE	INITIALS	CODE
3/29	C	220
"	Ellis	700

[illegible]
[illegible]
[illegible] OF MINES
Washington 25, D. C.

Date March 27, 1957

DMEA Docket No. 4692
DMEA Contract No.
Commodity Uranium
Name of applicant Uranium & Rare Minerals Inc.
Name of property Arrowhead Nos 1-6, etc.
Location of property San Juan Co., Utah
Estimated cost of project $6,000

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

JP

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

1. Date of subject document: 2/24/57. 2. Date received by reviewer: 3/25/57

3. Other reports on this property known to reviewer: Yes ☐ No ☐

4. Other reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Factors meeting special consideration:
   a. Location ☐
   b. Ownership ☐
   c. Evidence of mineralization ☐
   d. Geology ☐
   e. Proposed exploration method ☐
   f. Alternate exploration method ☐
   g. Costs ☐
   h. _____ ☐

9. Action advised:
   a. Obtain information from applicant ☐
   b. Refer to Field Team ☒
   c. Initial ☐
   d. Agree with Field Team ☐
      i. Consult with Mr. _____ at _____ AEC office.
   e. Disagree with Field Team ☐
   f. Suggest alternate plan ☐
   g. Request another examination ☐
   h. Approval ☐

10. Remarks: (Use back of page if necessary)

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

March 22, 1957

Uranium & Rare Minerals, Inc.
271 30th Street
San Francisco, California

Subject: DMEA-4692
Re: Exploration Assistance

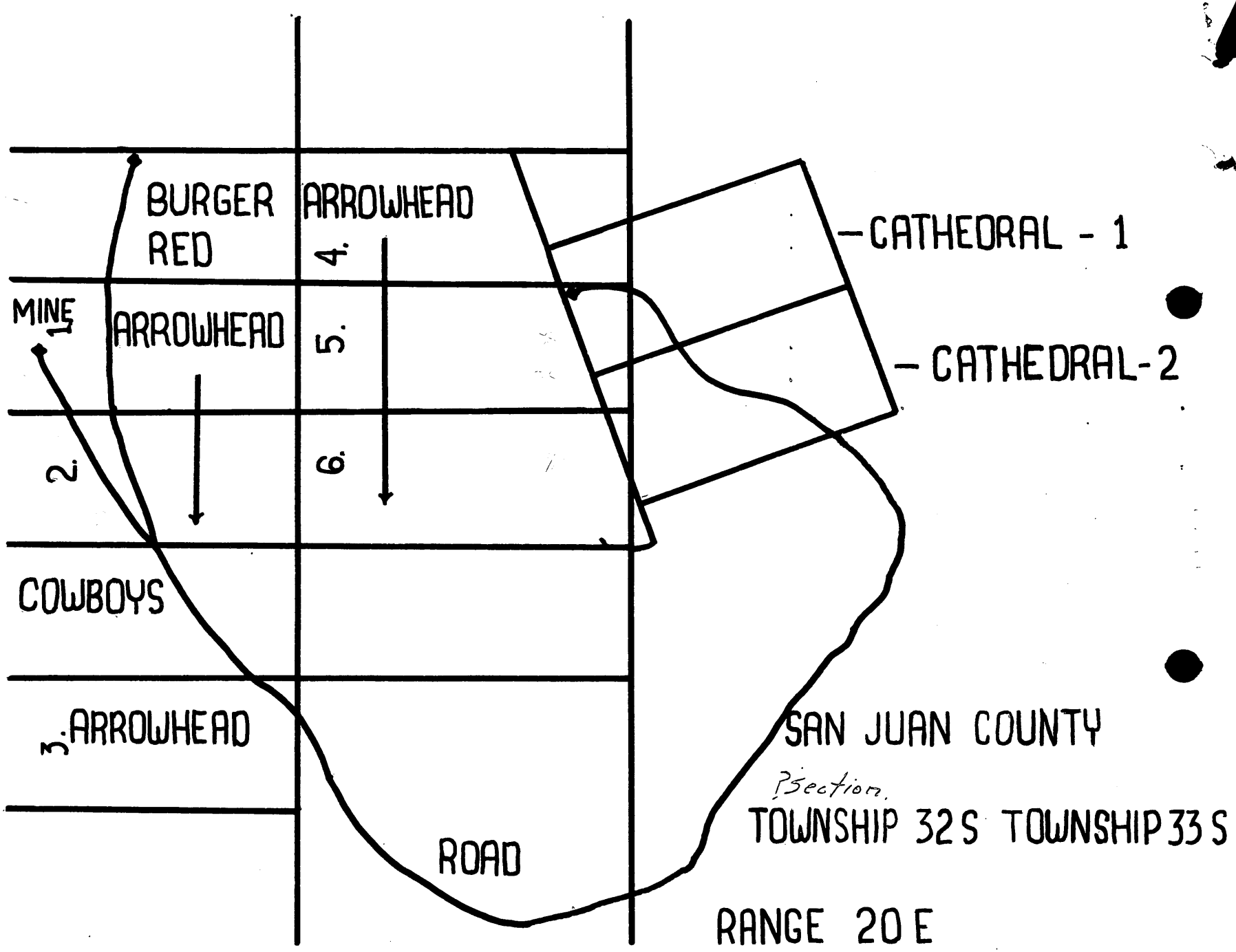
Gentlemen:

Your application for exploration assistance, dated February 24, 1957 submitted to our office at Denver, Colorado has been assigned Docket Number DMEA-4692 and referred to the Rare & Miscellaneous Division - in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Chief
Operations Control and
Statistics Division

Copy to: Region III


BURGER
RED
ARROWHEAD
4.
MINE
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ARROWHEAD
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6.
COWBOYS
3.
ARROWHEAD
ROAD
CATHEDRAL - 1
CATHEDRAL-2
SAN JUAN COUNTY
Section
TOWNSHIP 32 S
TOWNSHIP 33 S
RANGE 20 E

OFFICIAL FILE COPY
D N E A
RECEIVED MAR 21 1957

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